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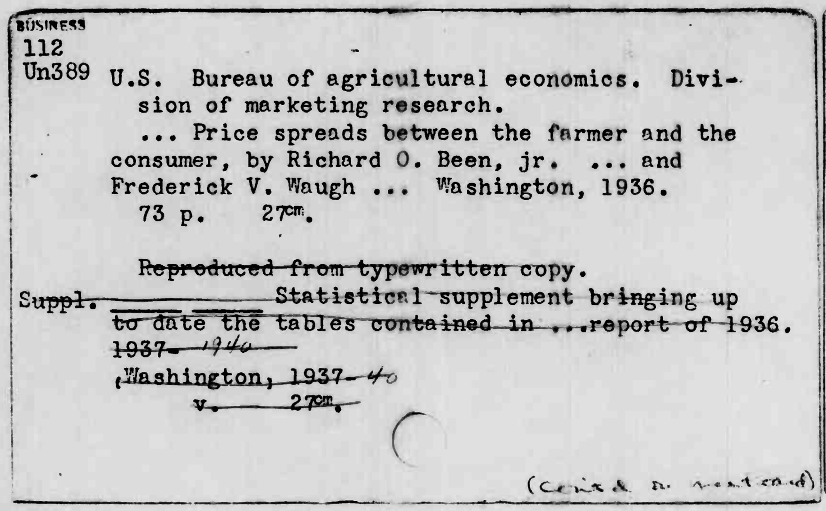

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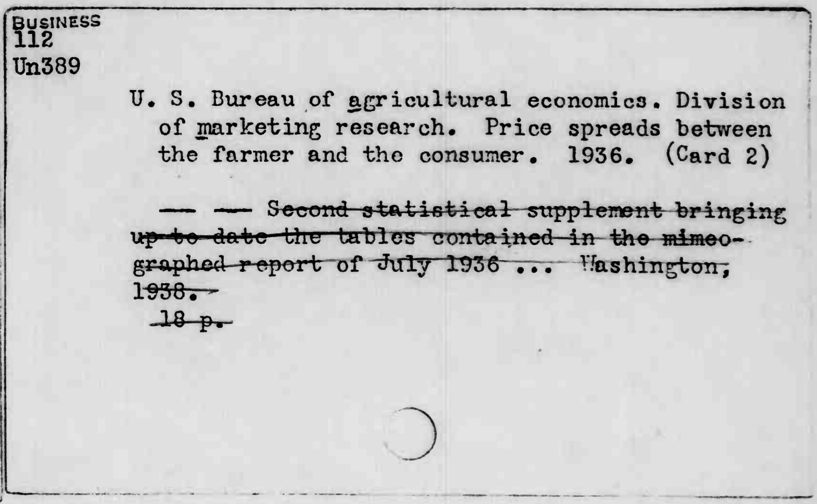

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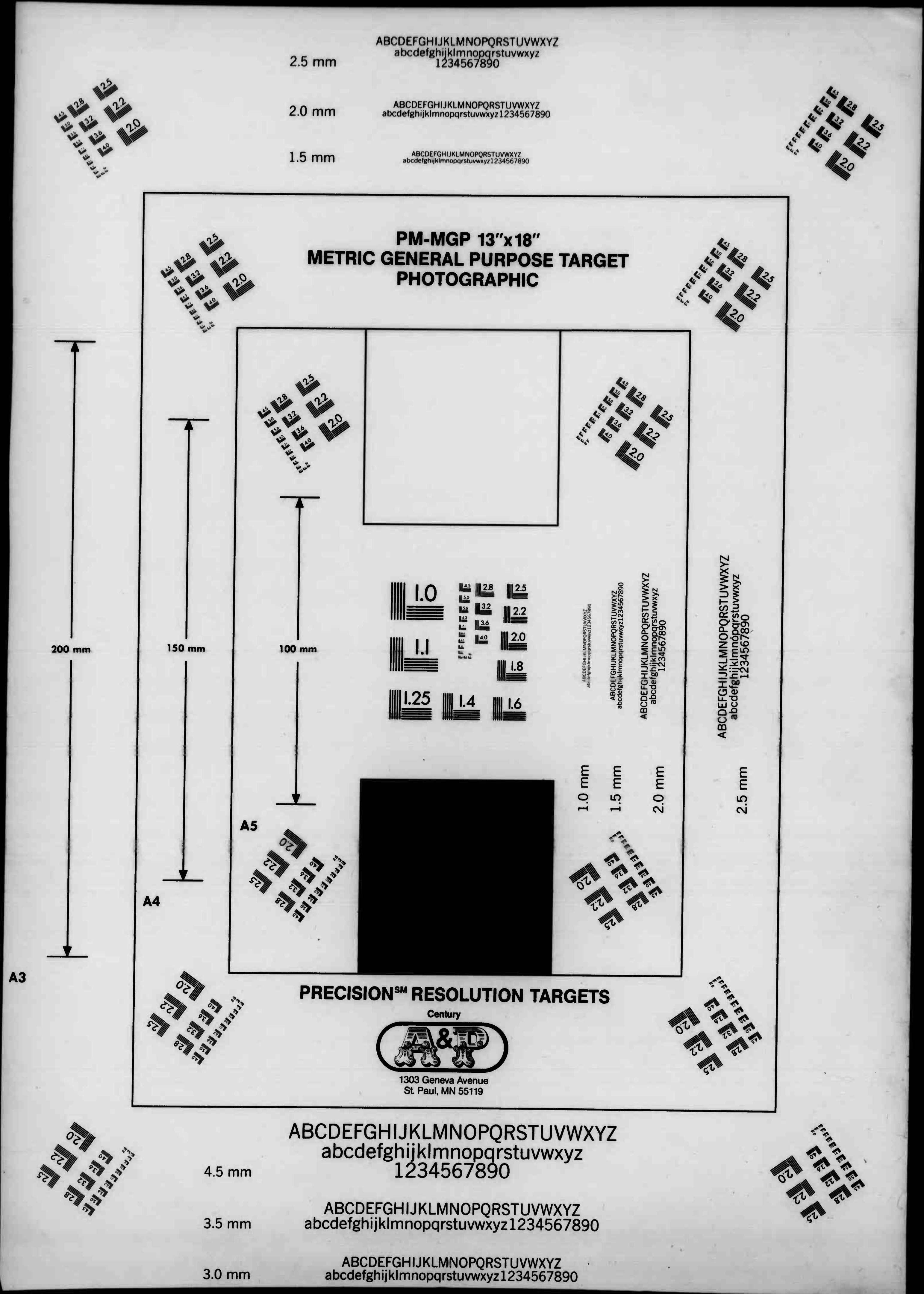

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PRICE SPREADS BETWEEN THE FARMER AND THE CONSUMER

By Richard O. Been, Jr. Agricultural Economist, and
Frederick V. Waugh, Principal Agricultural Economist

Washington, D. C.
July 1936

F O R E W O R D

The American public is keenly interested in costs and charges between farmers and consumers. This interest has been particularly strong since the beginning of the depression, as these charges and prices to consumers generally did not fall so rapidly or so far as did prices to farmers. Farmers, consumers, and the marketing and transportation industries are concerned with the question.

As recovery advances and consumer incomes rise, the general interest in marketing costs may subside partially, but our interest in this problem should not be temporary or intermittent. There is a constant need for the regular collection, analysis, and publication of data to show changes in the price spreads for all important farm products.

This report is a summary of the best available statistical facts about the spread between prices of food products at the farm and prices of foods in the city store. It is designed to give the student in this field a general picture of the facts.

As this report is intended primarily for economists and technical workers, it includes a detailed description of the methods used to measure price spreads. A leaflet is being prepared for non-technical readers that will give a summary of the main facts in this report.

No detailed analysis of reasons for variations in price spreads is here attempted. The reader who hopes to find proof that charges are too high or too low will be disappointed. Such an analysis could be made only by careful and detailed studies of costs, profits, and organization in all the food-processing and food-distributing industries, and a careful consideration of alternative methods in these industries.

A G Black
Chief,
Bureau of Agricultural Economics.

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PRICE SPREADS BETWEEN THE FARMER AND THE CONSUMER

- - - - -

By Richard O. Been, Jr. Agricultural Economist, and
Frederick V. Waugh, Principal Agricultural Economist,
Division of Marketing Research

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Introduction

Whenever food prices change abruptly there is a wave of popular interest in charges for transportation, processing, and marketing. Food prices dropped sharply from 1929 to 1932 and, as usual, charges for transportation, processing, and marketing remained fairly stable. As a result the percentage drop in prices at the farm was much greater than the percentage drop in retail prices of food. Naturally, the farmer became very much concerned with marketing costs and tried in many ways to reduce them.

During the upswing in food prices from 1933 through 1935 the consumer became very much interested in costs of marketing. There has been much discussion about the pyramiding of costs such as increased wage rates and processing taxes. Probably most consumers realized in 1932 that prices received by farmers for food products were too low. They favored a public policy that would raise prices to farmers, at least moderately, if it could be carried out in such a way that retail prices of food would not be increased unnecessarily.

Interest in the facts about the spread between prices at the farm and prices in city retail stores has been so keen since 1929 that the Bureau of Agricultural Economics published a preliminary report in

March 1935 entitled, "The Margin Between Farm Prices and Retail Prices of Ten Foods." This report brought together the available statistical data on the prices of a few of the most important foods from 1910 through 1934. Studies of margins have been continued. This report summarizes the total spread between the equivalent values of 58 food items at the farm and in city retail stores. There is no historical record of prices of many food items, but it is believed that the trends in prices and the trends in price spreads represented by these 58 items are fairly representative of food products in general.

There is one difficulty in using these figures to represent accurately the farmer's share of the consumer's food dollar; that is, that no attempt has been made to trace down the retail value of all minor products and by-products of such commodities as wheat and livestock. If this could be done the total amount the consumer spends for the products from a bushel of wheat or from a steer would be larger than that indicated in the tables and charts of this report and the spread between farm values and retail values would therefore be larger also. For that reason the farmer's share of the consumer's food dollar may be somewhat smaller than indicated by the figures in this report, but it is believed that the trends in the farmer's share of the consumer's food dollar and the year-to-year changes in his share are fairly well represented.

The retail prices used in this report are those obtained by the Bureau of Labor Statistics. The farm prices are principally those published by the Division of Crop and Livestock Estimates of this Bureau.

Farm-to-retail price margins as used in this study represent all charges between the farmer and the urban consumer. These charges represent varying amounts of transportation, processing, and marketing. For example, amounts of transportation vary from the trucking of vegetables from nearby market gardens to the city to the shipment of many localized crops across the entire country. Amounts of processing vary from practically none at all on such foods as eggs and potatoes to complicated and extensive processing, like the canning of corn and the baking of bread. Costs of city wholesale and retail marketing also vary from commodity to commodity, from city to city, and from one dealer to another.

The reader should note carefully the distinction between price spreads and costs of transportation, processing, and marketing. No attempt is made in this study to analyze costs. The price spreads include varying amounts of profits. No attempt is made here to analyze the figures for the purpose of deciding whether or not profits may be too large at any particular point in the marketing system. A study now being conducted by the Federal Trade Commission should throw light on that question. The farmer and the consumer are interested not so much in finding out whether some individuals in the marketing system are making large profits as they are in the more important question of whether the whole system could be made more efficient. Real improvement in the efficiency of marketing might well result in

lower prices to the consumer, in a greater income to farmers, and in greater profits to dealers and processors.

Nature of This Report

The period covered in this report is from 1913 to 1935. Farm prices, retail prices, and the farm-to-retail price spreads are given for each year in the period for which the necessary price data are available. Tables 10 to 42, pages 34 to 66, show the retail value, the equivalent farm value, the actual margin per retail unit, and the farm value as a percentage of the retail value for each food or group of foods. The methods of calculation are discussed in sections that precede the tables. The annual expenditure for the 58 foods by a workingman's family has also been estimated for each year during the period 1913 to 1935. This is shown in table 8, p. 32 and figure 1, p. 4.

The table and the chart each summarizes the movements of food prices at the farm and in the retail store since 1913 and indicates roughly, at least, the trends in the farmer's share of the consumer's food dollar. The tables and charts that are presented later indicate that the farmer's share of the consumer's dollar spent for some foods is very much greater than his share in a dollar spent for other foods. For example, in 1935 the farmer received about 9 percent of the dollar the consumer spent for soda crackers, and about 66 percent of the dollar spent for eggs. The variations in margins for the different food products are discussed later. It will first be of some interest to analyze the trends in marketing costs and charges for the 58 foods as a group.

Annual Family Purchases of 58 Foods Combined

Values and margins for 58 foods combined are given in table 8 and figure 1, by years, 1913-35. The retail value of 58 foods represents annual expenditure for these foods by a typical workingman's family. The farm value is the income received by farmers for equivalent quantities of farm products required to supply the 58 foods. The same data are shown in table 9 reduced to an index basis and including months of 1935 and January-May, 1936.

The importance of the 58 foods and of several sub-groups in the total expenditure per family for foods in 1935 is indicated in table 1. The consumption data for the 58 foods were obtained from the Bureau of Labor Statistics Cost of Living Survey of 1918-19 which gave consumption of 128 food items, presumably including all foods. The various items were valued at estimated retail prices for 1935. The retail value of the 58 foods makes up nearly three-fourths of total expenditures for 128 food items, and about one-third of the remainder represents foods not obtained from domestic farm products, such as coffee, imported sugar, and fish. Dairy products appear to be the most important sub-group among the 58 foods. It is probable

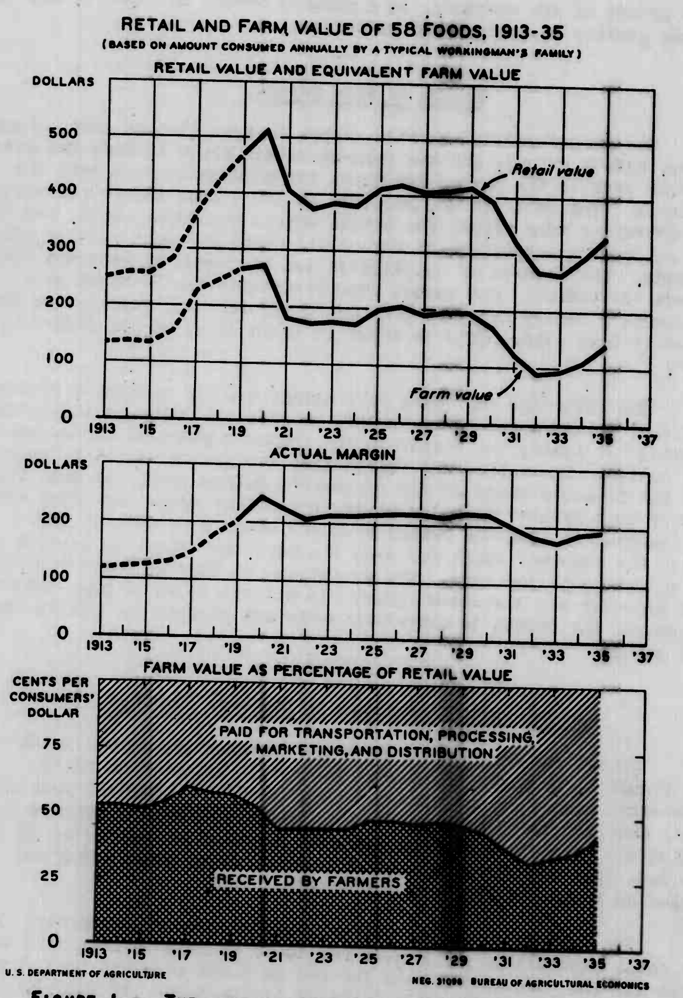


FIGURE 1.- THE ACTUAL MARGIN IS THE DIFFERENCE BETWEEN FARM VALUE AND RETAIL VALUE. THE PORTION OF THE CONSUMER'S FOOD DOLLAR THAT WAS RECEIVED BY FARMERS WAS LARGER THAN 50 PERCENT DURING THE PERIOD 1913-20 AND HAS BEEN LESS THAN 50 PERCENT SINCE 1920, REACHING ITS LOWEST POINT IN 1932 AND RISING STEADILY SINCE 1932. PRIOR TO 1919 THE SERIES ARE BASED UPON PRICE DATA FOR 22 TO 24 OF THE MORE IMPORTANT FOODS.

Table 1.- Expenditures for food by a typical workingman's family in 1935.

Commodity	Retail value	Percent of all 128 foods	Percent of 58 foods
	Dollars	percent	percent
58 Foods			
Beef products	53.04	11.8	16.0
Pork products	39.58	8.8	11.9
Dairy products	79.19	17.6	23.9
Eggs	22.33	5.0	6.7
Bakery products and cereals	67.06	14.9	20.2
Fresh fruits and vegetables	47.07	10.4	14.2
Canned fruits and vegetables	5.18	1.1	1.6
Other foods of 58	18.18	4.0	5.5
Total	331.63	73.6	100.0
Other foods not included in 58	119.17	26.4	
Total 128 food items	450.80	100.0	

Source: Bureau of Labor Statistics, "Retail Prices of Principal Items of Food," with estimated prices of foods not reported by Bureau of Labor Statistics.

Annual food consumption data were obtained from the 1918-19 Bureau of Labor Statistics cost of living survey, giving annual purchases per family of 128 food items.

that there have been significant shifts in consumption habits since 1918-19. A consumption study now being made by the Bureau of Labor Statistics in the U. S. Department of Labor and the Bureau of Home Economics in the U. S. Department of Agriculture will give more up-to-date information on this point and will make possible some corrections in the weights used in the present study.

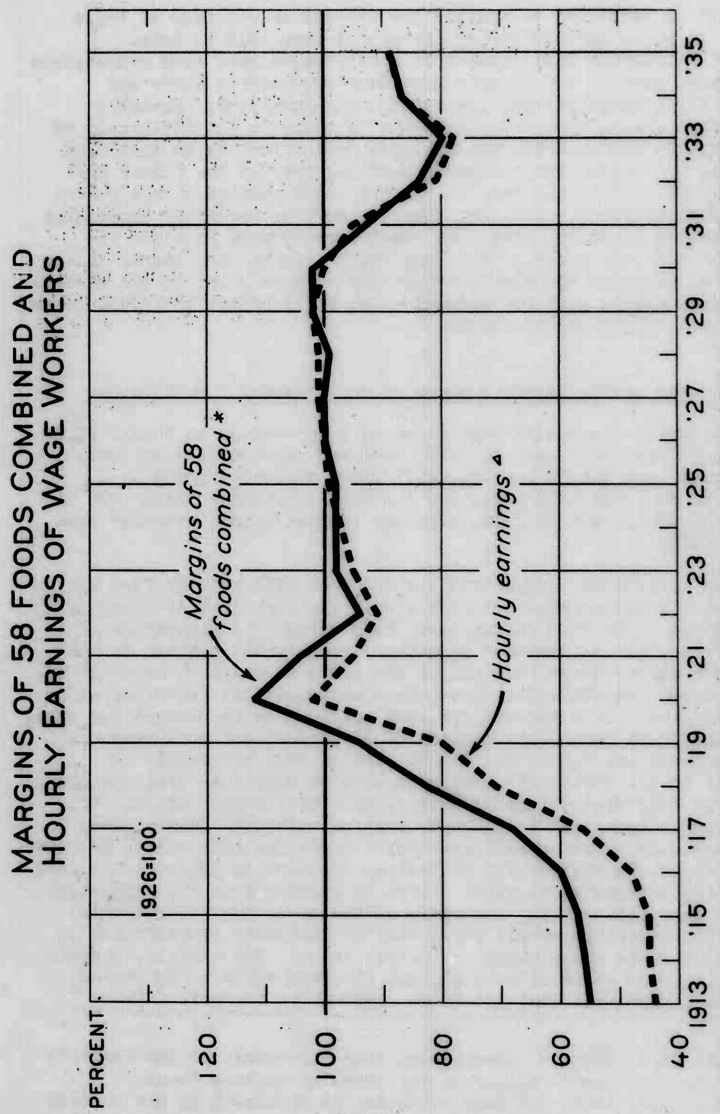
Figure 1 shows that the cost of a workingman's family's annual consumption of 58 foods was lowest during the pre-war period 1913-15, averaging about $256, and that this level was nearly reached again with $264 in 1933. The farm value of the 58 foods, on the other hand, was much lower during 1932 and 1933 than in any previous year of the 23-year period, and barely rose to the 1914 level by 1935. Thus, in 1933 these foods cost the consumer more than in the pre-war period, while the farmer received substantially less for producing them.

Margins Follow Hourly Wage Rates

The costs and charges for transporting, processing, and distributing the 58 foods, represented by the margin, rose sharply from $124 in 1915 to $242 in 1920, nearly doubling in 5 years. The percentage increases in farm and retail values and margins from 1915 to 1920 were about the same, so that the farmer's share of the consumer's dollar was practically unchanged, amounting to 52 cents in 1915 and 53 cents in 1920. During the deflationary period of the early 20's, the sharp drop in retail value of 58 foods was accompanied by a less-than-proportional decline in margins, and a relatively large decline in prices received by farmers. Margins of 58 foods combined increased slightly from 1923 to 1930. In 1933 the margin of $172 was the lowest since 1917. The $10 decline in margins from 1932 to 1933 more than offset the $6 decline in retail value, so that farm value began its rise with a $4 increase from 1932 to 1933.

The farm-to-retail price margin of 58 foods combined appears to be closely associated with the Bureau of Labor Statistics Index of Hourly Earnings of wage-workers, exclusive of agriculture, as shown in figure 2. From 1913 to 1919 and from 1922 to 1935 year-to-year changes in margins were similar to those in hourly earnings, while from 1919 to 1922, margins decreased relative to hourly earnings.

This close relationship between hourly wage rates and charges for transportation, processing, and marketing is to be expected, since most of the costs involved in getting foods from the farmer to the consumer are made up largely of wage rates. In general, it appears that year-to-year changes in the spread between prices at the farm and in city retail stores are due to four factors: (1) changes in hourly wage rates and changes in other cost items, (2) changes in profits of processors and dealers, (3) changes in the efficiency of the marketing system, and, (4) changes in the amounts of processing and in the amounts of various kinds of services.



* ESTIMATED PRIOR TO 1935 FROM MARGINS OF FOODS FOR WHICH RETAIL AND FARM PRICE DATA WERE AVAILABLE.
▵ SOURCE, BUREAU OF LABOR STATISTICS. 1935 ESTIMATED FROM HOURLY EARNINGS IN 25 MANUFACTURING INDUSTRIES

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FIGURE 2.- YEAR-TO-YEAR CHANGES IN ACTUAL MARGINS OF 58 FOODS COMBINED WERE SIMILAR TO THOSE IN HOURLY EARNINGS OF WAGE-WORKERS EXCEPT DURING THE YEARS 1919-22 WHEN MARGINS DECREASED RELATIVE TO HOURLY EARNINGS.

It is difficult to analyze the effects of all four of these factors on price spreads during the period from 1913 to date. However, it appears that changes in hourly wages have been responsible for a large part of the changes that have occurred in costs and charges for transportation, processing, and marketing. Probably during this period there was also some increase in the efficiency of the marketing system which was in large part offset by an increased amount of processing and increased services between the farmer and the consumer. There has been a constant trend throughout the period toward smaller retail units and toward a greater amount of processing and packaging of foods. This, by itself, would tend to widen the spread between the price at the farm and prices in city stores unless it were accompanied by greater efficiency at some point in the marketing system, making possible savings which would offset the added costs of more processing and packaging.

Changes in the Farmer's Share of the Consumer's Food Dollar

Figure 1 shows that farm value as a percentage of retail value of 58 foods rose from 1913 to 1917, declined continuously to 1921, then varied less than 5 percent until 1930, dropped sharply to a minimum of 33 percent in 1932, and has been increasing since 1932 to a level of 42 percent in 1935, with the largest single increase from 1934 to 1935.

In table 2 are summarized for the year 1935 average farm and retail values and margins per retail unit for each item or group of the 58 foods. The last column shows farm value as a percentage of retail value, and is intended to measure roughly the portion of the consumer's dollar spent for each of the products which is received by the farmer.[1] In 1935, this percentage shows typical variation among foods, ranging from 9 percent for soda crackers to 66 percent for eggs, corresponding to percentage margins of 91 percent for soda crackers and 34 percent for eggs. The actual size of this percentage is important to the farmer since margins tend to vary less over periods of time or with fluctuation of supply, than does retail price. If the margin in cents per retail unit remains constant, then a given actual decrease in the retail price will cause the same actual decrease in farm value, in cents. The percentage decrease in price at the farm under these circumstances would always be greater than the percentage decrease in retail price. The ratio of the percentage decrease in farm price to that in retail price will be inversely proportional to the farm value as a percentage of retail value. For example, suppose the retail price of an item is $1, and the farm value is 60 cents. If the margin remains constant at 40 cents while the retail price

---

[1] The difficulty in interpreting this percentage as the farmer's share of the consumer's dollar in the cases of certain foods, especially pork, beef, and lamb products, is discussed in the section on Equivalents (p. 18), and on Farm Value as a Percentage of Retail Value, (p. 31).

Table 2.- Farm-to-retail price margins--average for 1935

Retail commodity	Retail unit	Equiv. farm value	Retail price	Margin	Farm value as percent of retail value
		cents	cents	cents	percent
Beef	Pound	13.5	29.8	16.3	45
Pork	Pound	16.1	27.3	11.2	59
Lamb	Pound	14.8	26.4	11.6	56
Dairy prod. [1]	100 lbs.	$ 1.40	$ 3.13	$ 1.73	45
Hens	Pound	16.5	29.2	12.7	57
Eggs	Dozen	24.1	36.6	12.5	66
Bread, white	Pound	1.4	8.3	6.9	17
" , rye	Pound	1.3	9.0	7.7	14
" , whole wheat	Pound	1.3	9.1	7.8	14
Soda crackers	Pound	1.6	17.2	15.6	9
Flour, white	Pound	2.0	5.1	3.1	39
Corn meal	Pound	2.1	5.1	3.0	41
Rolled oats	Pound	2.2	7.6	5.4	29
Corn flakes	8-oz. pkg.	1.8	8.4	6.6	21
Wheat cereal	28-oz.pkg.	3.0	24.4	21.4	12
Rice	Pound	2.5	8.3	5.8	30
Macaroni	Pound	2.4	15.6	13.2	15
Hominy grits	24-oz.pkg.	4.1	10.1	6.0	41
Apples	Pound	1.9	5.8	3.9	33
Lemons	Dozen	8.6	27.3	18.7	32
Oranges	Dozen	8.7	31.8	23.1	27
Beans, green	Pound	3.5	12.0	8.5	29
Cabbage	Pound	.7	4.0	3.3	18
Carrots	Bunch	1.0	5.5	4.5	18
Celery	Bunch	2.3	10.3	8.0	22
Lettuce	Head	3.0	8.8	5.8	34
Onions	Pound	1.3	5.2	3.9	25
Potatoes	Pound	.8	1.9	1.1	42
Spinach	Pound	3.1	7.9	4.8	39
Sweet potatoes	Pound	1.3	4.4	3.1	30
Peaches, canned	No.2½ can	2.7	19.5	16.8	14
Pears, canned	No.2½ can	3.0	22.9	19.9	13
Asparagus, canned	No. 2 can	7.8	25.5	17.7	31
Beans, green canned	No. 2 can	1.9	11.8	9.9	16
Beans with pork	16-oz.can	.8	7.0	6.2	12
Corn, canned	No. 2 can	1.4	12.6	11.2	11
Peas, canned	No. 2 can	2.2	17.1	14.9	13
Tomatoes canned	No. 2 can	1.4	10.0	8.6	14
Prunes	Pound	3.5	11.0	7.5	32
Raisins	Pound	2.9	9.8	6.9	30
Navy beans	Pound	3.3	6.0	2.7	55
Beet sugar	Pound	1.7	6.0	4.3	28
Cane sugar	Pound	1.8	5.7	3.0	32
Peanut butter	Pound	6.5	21.3	14.8	31
58 Foods [1]	[2]	$138	$331	$193	42

[1] Prices and margins in dollars.
[2] Annual consumption by a typical workingman's family.

decreases 10 cents or 10 percent, the farm value will decrease 10 cents or 16-2/3 percent. With a retail price of $1 and a farm value of 20 cents, and a fixed margin of 80 cents, however, the decrease of 10 cents or 10 percent in the retail price will cause a decrease of 10 cents or 50 percent in the farm value. The much larger percentage drop in farm value in the second case is due to the fact that the initial farm value was 20 percent of retail value, and we have 50% = (10%/20) x 100, 16-2/3% = (10%/60) x 100, and 50%/16-2/3% = 60%/20%.

The argument presented above is based upon the assumption that the absolute margin remains constant as the retail price changes. This assumption may be justified in isolated cases, but, in general, margins are not constant. If margins vary absolutely, but are a constant percentage of retail value, then obviously any percentage change in retail price will cause the same percentage change in farm price.

Figure 3 compares farm value as a percentage of retail value in 1932 and 1935 with the average for the period 1922-30 for several of the 58 foods and for the 58 foods combined.

Previous studies have shown that the retailer's margin as a percentage of retail value varies among commodities directly with the number of retail units per farm product unit[2], and inversely with the normal value of a retail sale.[3]

The Nature of Variation in Margins

Variation in margins of a given item or group of foods may be related to variation in (1) cost factors, (2) prices, and (3) supply.

The variation in margins over time, or the secular trend in margins, can be explained largely by long-time changes and trends in cost factors, such as hourly earnings (figure 2), freight rates, etc. Other factors causing long-time changes in margins are shifts in centers of production and of consumption, a trend toward increased retail credit, and demand for more services from processors and distributors. Increased efficiency in processing and in distribution and trends toward cash-and-carry retailing are factors offsetting the effects of those mentioned above.

The relation of margins to supply could be derived theoretically from the relation of margins to price through the supply-price function, after variation in the price level had been eliminated, but supply-price functions themselves are sometimes vague and unreliable.

---

[2] Waugh, Frederick V., Retail Margins on Farm Produce in Trenton, New Jersey, N. J. Dept. of Agriculture. Circular 86, 1925.

[3] Artman, Charles E., Expense Factors in City Distribution of Perishables, U. S. D. A. Bull. 1411, 1926.

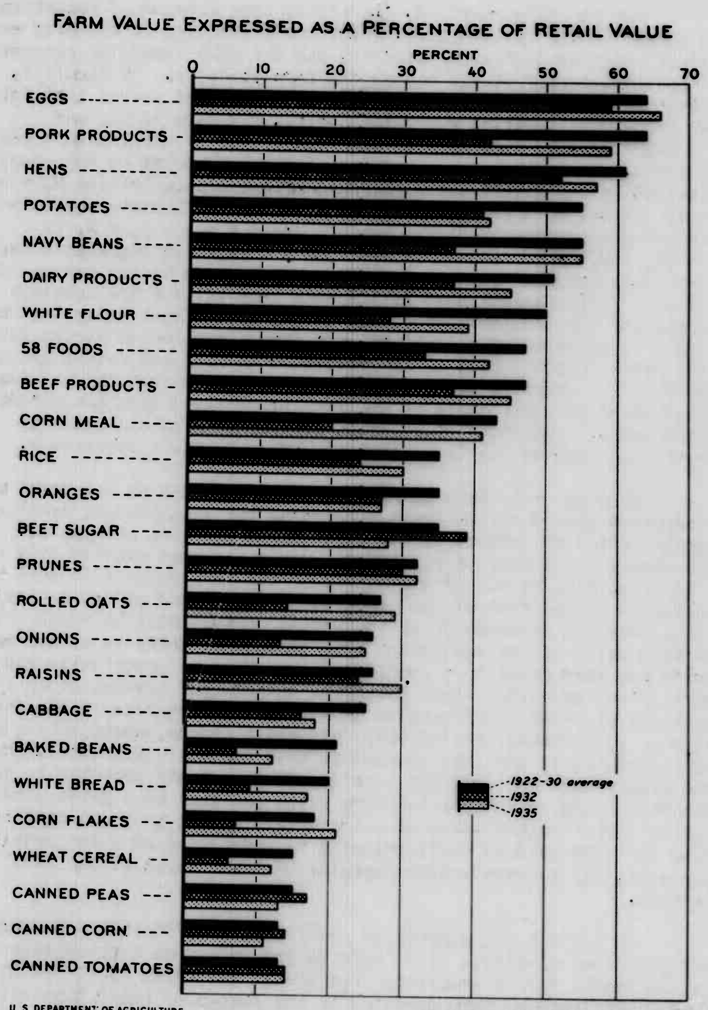

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FIGURE 3.- THE FARM VALUE AS A PERCENTAGE OF RETAIL VALUE EXPRESSES THE FARM VALUE OF THE EQUIVALENT FARM PRODUCT AS A PERCENTAGE OF THE RETAIL VALUE OF THE PRINCIPAL FOODS DERIVED FROM THE FARM PRODUCT WITH NO ALLOWANCE FOR VALUE OF BY-PRODUCTS.

For 58 foods combined, the effect upon margins of variation in supply should be minimized, since low production of one crop would offset large production of another, and the only remaining variation is in total supply of all equivalent farm products. In figure 4, actual retail value of 58 foods is plotted against actual farm value for 1920-1935. Letting y = retail value, x = farm value, and $m = y-x$ = margin, zero margins are represented by the line $m = y-x = 0$ or $y = x$. The actual margin represented by any point on the chart is measured by the height above the zero margin line. Letting M_y = average retail value, M_x = average farm value, a constant margin equal to the average margin is represented by the line $m = y-x = M_y - M_x$ or $y = (M_y - M_x) + x$. Similarly the line $y = (M_y/M_x)X$ represents constant percentage margins equal to the percentage margin at the means. The actual relation established by the data lies between the constant margin and the constant percentage margin lines, indicating that the margin is composed of a constant part plus a part which varies directly with retail price. Most of the variation in farm and retail prices shown in the chart is due to variation in price level, and the figure illustrates the dependence of the farm price level upon the retail price level. This type of relation between margins and price is typical of each of the foods that have been analyzed separately.

From the relations of margins to price, such as discussed above, inferences should not be drawn concerning the relations of margins to supply, until the effect of the price level has been eliminated. Apparently a relation of margins to supply can have meaning only when a large portion or all of the supply of the farm product is sold to consumers in the form of the particular retail product under consideration; that is, consumption of the retail product must be nearly equal to farm sales of the equivalent farm product in order to relate retail price and farm price to a common supply. This is practicable for beef, pork, dairy products, eggs, potatoes, onions, and several other items. Analysis of relation of margins to supply is impracticable for items such as corn flakes, rolled oats, and wheat cereal, where only a small part of sales of the farm product is used for the given retail product. The proper method to use for such an analysis would probably be to determine margins between the farm price per unit of a given product and the total retail value of all possible retail products obtained from one farm-produce unit, weighted by quantities of these retail products, and to relate these margins to total sales of the farm product.

In table 3 are summarized coefficients of correlation between deflated farm-to-retail price margins and supply as a percentage of linear trend, for 12 important food groups including 23 of the 58 foods. The margins were deflated by the Bureau of Labor Statistics Index of Hourly Earnings to remove variations due to change in costs over time without affecting variations associated with changes in supply. For the supply variable the most convenient series was chosen which should vary proportionally to the proper supply variable. In order to eliminate association due to trends in the two variables (some of which, however, may be significant) the supply variable was expressed as percentage of linear trend. The correlation coefficient

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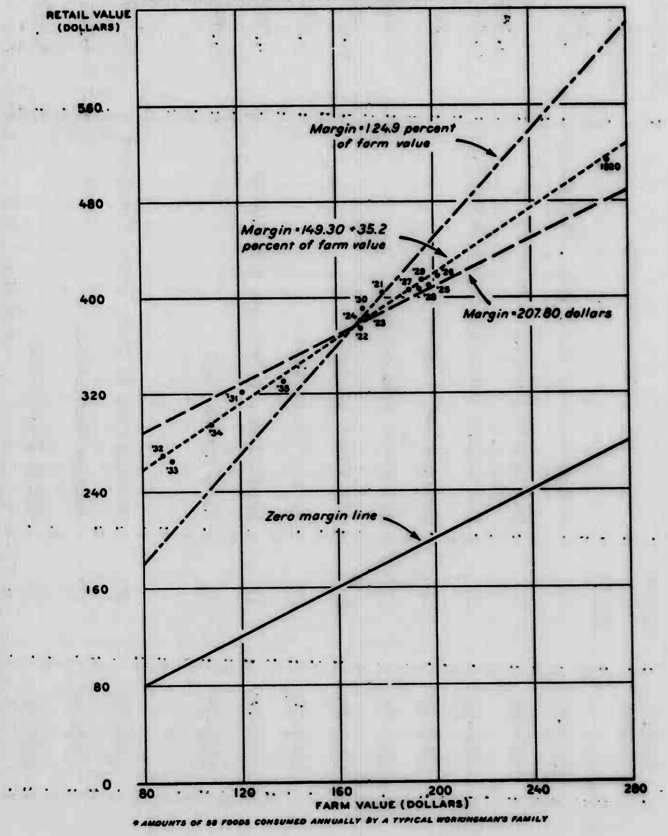
FARM TO RETAIL PRICE MARGINS FOR 58 FOODS* COMBINED, 1920-35

RELATION OF MARGINS TO FARM VALUE AND RETAIL VALUE



* AMOUNTS OF 58 FOODS CONSUMED ANNUALLY BY A TYPICAL WORKINGMAN'S FAMILY

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FIGURE 4.- THE ACTUAL MARGIN REPRESENTED BY ANY POINT ON THE CHART IS MEASURED BY ITS HEIGHT ABOVE THE ZERO MARGIN LINE. THE THREE LINES THROUGH THE INTERSECTION OF AVERAGE RETAIL VALUE AND AVERAGE FARM VALUE REPRESENT (1) CONSTANT ABSOLUTE MARGIN EQUAL TO THE 1920-35 AVERAGE MARGIN, (2) CONSTANT PERCENTAGE MARGINS EQUAL TO THE PERCENTAGE MARGIN AT THE AVERAGES OF FARM AND RETAIL VALUES, AND (3) THE ACTUAL LINEAR RELATIONSHIP ESTABLISHED BY THE DATA, WHICH INDICATES THAT THE MARGIN CONSISTS OF A CONSTANT PART PLUS A PART PROPORTIONAL TO FARM AND TO RETAIL VALUES.

Table 3.- Relation of margins to supply for selected foods
Y = Farm-to-retail price margins per retail unit
deflated by the B. L. S. Hourly Earnings Index
X = Supply as a percentage of linear trend

Commodity	Period covered	Number of years	Supply variable	Coefficient of correlation
				r_{yx}
Beef products	1916-35	20	Consumption of Fed. Insp. Slaughter	-.303
Dairy products	1924-34	11	Per Capita Consumption of Dairy Products	-.139
Hens	1922-35	14	Per Capita Consumption of Drawn Hens	-.292
Eggs	1919-35	17	Receipts at 5 Markets	-.064
White flour	1913-35	23	All Wheat Production	-.617
White bread	1913-35	23	All Wheat Production	-.254
White potatoes	1913-35	23	Potato Production	-.134
Cabbage	1919-35	17	Production of Cabbage for Market	-.089
Rice	1913-35	23	Rice Production	-.150
Pork products	1916-35	20	Consumption of Fed. Insp. Slaughter	+.279
Oranges	1919-35	17	Orange Production	+.122
Onions	1918-35	18	Onion Production	+.452

Negative correlation coefficients indicate that margins decrease as supply increases.

is the regression coefficient in terms of unit standard deviations and permits comparison between commodities. The purpose of this analysis was merely to determine whether farm-to-retail price margins tended to increase or decrease as supply increased. The negative correlation coefficients indicate that narrower margins may be expected with large supply than with small supply in the cases of beef products, dairy products, hens, eggs, flour, bread, potatoes, cabbage, and rice. On the other hand, pork products, onions, and oranges appear to have wide margins associated with large supply and show a tendency for margins to narrow as supply decreases.

The relation of margins to supply determines the relation to the retail price-supply curve of the derived farm value-supply curve. When margins are constant, the slopes of the two curves for a given supply are the same. When margins decrease as supply increases, the retail price-supply curve and the derived farm value-supply curve converge as supply increases, whereas they diverge if margins increase with supply.

The elasticity of a supply-price curve for a given supply varies inversely with the slope and directly with the price. It is apparent that the derived farm price-supply curve will be of the same elasticity as a given retail price-supply curve only if margins are a fixed percentage of price, while any tendency toward constant margins or toward an increase of margins with supply will result in a farm price-supply curve less elastic than the retail price-supply curve.

Comparison of Fluctuation of Farm and Retail Prices

A problem of general interest is the determination of the relation between fluctuation of retail prices and fluctuation of farm prices. This relation depends upon the size and nature of the farm-to-retail price margins. In order to discuss this problem, the variation in farm and retail values per retail unit of each of the food groups for which farm and retail prices were available was analyzed for the 9 years 1922 to 1930. The results are presented in table 4. The period 1922 to 1930 was chosen as a period of relatively stable price level during which the effects of fluctuation in the general price level upon variation in farm and retail prices was minimized.

If margins are constant, then the actual fluctuations (measured by the standard deviations 4/ of farm value and of retail value are equal, but the relative fluctuation (measured by the coefficient of variation--the standard deviation as a percentage of the mean) of

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4/ The standard deviation (σ) is a measure of the dispersion of values such that approximately two-thirds of the observations lie between (Mean - σ) and (Mean + σ).

Table 4.- Variation in yearly average farm and retail values of certain foods during the period 1922-30

Item	Retail unit	Means		Standard Deviations		Coefficients of variation		Farm as % of retail value		
		Farm value	Retail value	Farm value	Retail value	Farm value	Retail value	Means	Standard deviations	Coeff. of variation
		M_f	M_r	σ_f	σ_r	V_f	V_r	M_f/M_r	σ_f/σ_r	V_f/V_r
		dolls.	dolls.	dolls.	dolls.	percent	percent			
58 Foods	1/	184.77	398.44	12.71	15.23	6.9	3.8	47	83	182
Dairy products	100 lbs.Milk Equivalent	2.08	4.08	.11	.14	5.3	3.4	51	79	156
		cents	cents	cents	cents					
Beef products	Pound	14.93	31.46	2.96	3.60	19.8	11.4	47	82	174
Pork products	Pound	17.42	27.00	2.72	1.92	15.6	7.1	64	142	220
Hens	Pound	22.46	36.82	1.45	1.50	6.5	4.1	61	96	159
Flour, white	Pound	2.65	5.27	.45	.50	17.0	9.5	50	90	179
Bread, white	Pound	1.82	9.01	.30	.28	16.5	3.1	20	107	532
Eggs	Dozen	29.90	46.77	2.39	2.96	8.0	6.3	64	81	127
Potatoes	Pound	1.86	3.36	.53	.68	28.5	20.2	55	78	141
Rice	Pound	3.60	10.19	.66	.73	18.3	7.2	35	90	254
Corn meal	Pound	2.14	4.92	.34	.53	15.9	10.8	44	64	147
Beans, navy	Pound	5.97	10.77	.83	1.42	13.9	13.2	55	58	105
Beans, baked	1-lb. can	2.01	9.69	.48	.58	23.9	6.0	21	83	398
Rolled oats	Pound	2.38	8.92	.22	.15	9.2	1.7	27	147	541
Oranges	Dozen	17.84	51.89	5.51	5.31	30.9	10.2	34	104	303
Wheat cereal	28-oz. pkg.	3.89	25.20	.66	.50	17.0	2.0	15	132	850
Corn flakes	8-oz. pkg.	1.84	10.02	.28	.55	15.2	5.5	18	51	276
Cabbage	Pound	1.26	5.22	.33	.32	26.2	6.1	24	103	430
Onions	Pound	1.67	6.42	.46	.76	27.5	11.8	26	60	233
Raisins	Pound	3.91	15.14	1.53	3.25	39.1	21.5	26	47	182
Prunes	Pound	5.41	16.87	.84	1.85	15.5	11.0	32	45	141
Sugar, beet	Pound	2.79	7.86	.36	1.17	12.9	14.9	35	31	87
Peas, canned	No.2 can	2.54	17.30	.05	.67	2.0	3.9	15	7	51
Corn, canned	No. 2 can	2.09	15.99	.13	.72	6.2	4.5	13	18	138
Tomatoes, canned	No. 2 can	1.64	12.69	.12	.64	7.3	5.0	13	19	146

1/ Annual purchases by a typical workingman's family.

The coefficient of variation is the standard deviation expressed as a percentage of the mean.

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farm value is larger than that of retail value since the mean farm value is less than the mean retail value.

If margins are a constant percentage of retail price, then the actual fluctuation in farm value is less than that of retail value, while the relative fluctuations in the two series are equal. In this case margins tend to narrow as retail price decreases and as supply increases.

In table 4 are summarized the means, standard deviations, and coefficients of variation of farm value and retail value for 24 food groups, comprising 35 of the 58 foods, and for the 58 foods combined, over the 9-year period 1922-30. The three last columns express these measures for farm value as a percentage of those for retail value.

Data in the column expressing σ_f as a percentage of σ_r show that for most food groups the absolute variation in farm value is less than that in retail value. The column comparing coefficients of variation shows that relative fluctuation in farm value is generally much larger than the relative fluctuation in retail value. One of the exceptions is canned peas, and this may be due to the fact that green peas for canning are usually grown on a contract basis with prices to farmers necessarily closely related to cost of production.

Fluctuation in Farm Income and in Consumer Expenditure

Relative fluctuation in consumer expenditure for a given item and in gross farm income from sales of the equivalent product will be equal if margins are a constant percentage of price, that is, if the retail price-supply curve and the farm value-supply curve have equal elasticities for a given supply. If the retail price-supply curve is inelastic, then in general the farm value-supply curve will be more inelastic, and relative fluctuation in gross farm income will be larger than that in consumer expenditure. On the other hand, when the retail price-supply curve is elastic, in general the farm value-supply curve will be less elastic and may be inelastic, and the relative fluctuation in farm income may be less than that in consumer expenditure.

As estimates of consumption of farm products improve it should become possible to determine total expenditures by consumers for various products. Satisfactory estimates of gross farm income from sales are now available. From these estimates may be determined the ratio between total farm income from sales of products and total consumer expenditures for these products, which is the true farmer's share of the consumer's food dollar, obtained without the artificial assumption of a fixed bill of annual purchases per family.

The retail value of 58 foods based upon 1918-19 consumption data cannot equal actual family expenditures for all years. Such data on consumption of individual products as exist show that significant shifts in consumption may occur during short periods of time. For example, pork products are one of the most important groups of foods and per-capita consumption of pork products in 1935 is estimated to be about two-thirds that of 1933. Such changes have not been considered in computing the retail value of 58 foods combined.

Pyramiding of costs is widely discussed today. Such pyramiding occurs only in so far as margins tend to vary with price. Assuming margins are constant with respect to farm price, an increase of 10 cents per retail unit in farm value would be passed on to the consumer as a 10-cent increase in retail price. Similarly, a 10-cent increase in processing, transportation, or distribution costs per retail unit would merely increase the margin by 10 cents, with no pyramiding. Whenever margins tend to contain a component directly proportional to price, such a 10-cent increase in farm value would be magnified or pyramided into a larger increase in retail value, while a 10-cent increase in costs would generally be pyramided into an increase in margins larger than 10 cents, increasing the retail price or decreasing farm value, or affecting both. Since margins on most items appear to contain a component increasing with price, a certain degree of pyramiding is normally to be expected.

Such analysis as has been made indicates that the processing taxes on wheat and hogs have not been pyramided. The apparent decline in concurrent margins (excluding processing taxes) may be explained as due to compensating inventory gains resulting from the rising price level, and does not mean that processors absorbed part of the taxes. The rise in retail prices of food from the first part of 1933 through 1935 was associated with higher prices at the farm, together with some increase in processing and marketing charges. These increased charges appear to have been, on the average at least, about in line with increased costs, including higher wage rates and processing taxes.

Farm Produce Equivalents of Retail Food Items

For the purpose of estimating farm-produce equivalents, retail food items may be divided into three classes:

Class I: Foods such that a single retail item is derived entirely from a single farm product and such that the farm product yields no other product of value in addition to the given retail item. Such foods usually do not involve processing. Of the 58 foods considered in this study, 22 belong to Class I: hens, eggs, potatoes, sweetpotatoes, onions, cabbage, green beans, carrots, celery, lettuce, spinach, Navy beans, canned asparagus, canned green beans, canned corn, canned peas, canned tomatoes, apples, oranges, lemons, prunes, and raisins.

Class II: Foods derived from a single farm product which yields, in addition, other edible or inedible products or by-products. Twenty-five of the 58 foods belong to Class II: 5 beef cuts, 4 pork cuts and lard, 4 lamb cuts, white flour, corn meal, rolled oats, corn flakes, wheat cereal, hominy grits, rice, beet sugar, cane sugar, peanut butter, and macaroni.

Class III: Foods the processing of which requires more than one farm product or materials derived from two or more farm products. Among these foods are bakery products and certain canned goods. Seven foods may be placed in Class III: white bread, rye bread, whole-wheat bread, soda crackers, canned beans with pork, canned peaches, and canned pears.

The four dairy products--milk, butter, cheese, and evaporated milk--considered as a group, may be placed in any class in so far as physical equivalents are concerned, but the problem of retail and farm-value equivalents peculiar to dairy products makes it advisable to consider them separately.

The farm-produce equivalents used in this study are summarized in table 5. Farm-produce equivalents are held fixed throughout the period covered, except for the quantity of sugar beets and of sugar cane required to obtain 1 pound of granulated sugar.

Farm-produce equivalents of the retail foods falling into Class I are obtained directly for those foods which involve little or no processing, such as eggs and fresh fruits and vegetables. No allowance for shrinkage has been made for these foods, assuming that there is no loss or waste between the farmer and the consumer. (To supply 100 pounds of onions at retail may require, say, 110 pounds sold by the farmer, of which 10 pounds are lost through culling, spoilage, etc.) Shrinkage on these items varies through the months of the year and little information on the subject is available. In so far as shrinkage has been neglected, the indicated farm value as percent of retail value is somewhat below the actual farmer's share of the consumer's dollar spent for these foods.

In the cases of commodities the farm-produce units of which are standardized in terms of units differing from the usual retail unit, - such as the 50-pound bushel of carrots retailed by the bunch, the 90-pound 2/3 crate of celery retailed by the stalk, etc., - the estimates of equivalents, that is, the number of retail units per farm-produce unit, are based upon opinions of persons familiar with the trade, supported by a small amount of statistical evidence. No allowance has been made for seasonal variation in these equivalents.

The quantity of farm produce required per can for each of the five canned vegetables has been determined from fairly complete data on the packs for recent years. An appreciable degree of variation in

Table 5.- Farm-produce equivalents of foods as retailed for use in determining farm-to-retail price margins. (U. S. averages unless otherwise specified)

Bureau of Labor Statistics		Farm produce equivalent	
Commodity	Retail price unit	Product	Quantity
Beef products 1/	Pound	Live beef cattle	2.16 lb.
Pork products 1/	Pound	Live hogs	1.90 lb.
Lamb products 1/	Pound	Live lamb	2.16 lb.
Dairy products 1/	100 lbs. milk equivalent	Wholesale milk and butterfat	100 lbs. milk equivalent
Hens	Pound	Hens	1.11 lb.
Eggs	Dozen	Eggs	1 dozen
Bread--white	Pound	Wheat	.97 lb.
Bread--rye	Pound	Rye and wheat	.39 lb.rye and .64 lb. wheat
Bread--whole wheat	Pound	Wheat	.92 lb.
Soda crackers	Pound	Wheat	1.085 lb.
White flour	Pound	Wheat	1.41 lb.
Corn meal	Pound	Corn	1.5 lb.
Rolled oats	Pound	Oats	1.78 lb.
Corn flakes	8-oz. pkg.	Corn	1.275 lb.
Wheat cereal	28-oz. pkg.	Wheat	2.065 lb.
Rice	Pound	Louisiana rice	1.51 rough rice
Macaroni	Pound	Durum wheat	1.72 lb.
Hominy grits	24-oz. pkg.	Corn	2.95 lb.
Apples	Pound	Apples	1/48 bu.
Oranges	Dozen	Oranges	1/17 box
Lemons	Dozen	Lemons	1/27 box
Beans, green	Pound	Snap beans for mkt.	1/30 bu.
Cabbage	Pound	Cabbage for market	1/2000 ton
Carrots	Bunch	Carrots for market	1/55 bu.(50 lb.)
Celery	Stalk	Celery for market	1/78 of 2/3 crt.
Lettuce	Head	Lettuce for market	1/48 of 75# crt.
Onions	Pound	Onions	1 lb.
Potatoes	Pound	Potatoes	1/60 bu.
Potatoes, sweet	Pound	Sweet potatoes	1/55 bu.
Spinach	Pound	Spinach for market	1/18 bu.
Peaches, canned	No. 2½ can	Cal. cling (canning)	1.87 lb.
Pears "	No. 2½ can	Cal.&N.W.Bartletts(cng)	2.06 lb.
Asparagus "	No. 2 can	Cal.asparagus for mfg.	2.19 lb.
Beans with pork, cnd.	16-oz. can	Beans, dry, edible	.35 lb.
Beans, green, cnd.	No. 2 can	Snap beans for mfg.	.88 lb.
Corn, canned	No. 2 can	Sweet corn for mfg.	3.2 lb.
Peas, canned	No. 2 can	Green peas for mfg.	.88 lb.
Tomatoes, canned	No. 2 can	Tomatoes for mfg.	2.3 lb.
Prunes	Pound	Cal. Dried basis	1 lb.
Raisins	Pound	" " "	1.08 lb.
Beans, navy	Pound	Beans, dry, edible	1 lb.
Sugar,granulated,beet	Pound	La.sugar cane	Est.by yrs.(6.4-8.1 lb.)
Sugar, " cane	Pound	Sugar beets	Est.by yrs.(1.35-2.04 lb.)
Peanut butter	Pound	Peanuts (farm stock)	1.73 lb.

1/ See discussion in text on Equivalents pp. 18 to 24 .

these equivalents from year to year is indicated, but the value used here is held fixed at an approximate normal.

An allowance of 10 percent for shrinkage between the farmer and the consumer has been made in the case of hens. It is estimated that 1-1/9 pounds of live hens sold by the farmer is equivalent to 1 pound of dressed hens sold at retail.

Dry beans are sold by the farmer on a cleaned dried basis as retailed.

Raisins as retailed shrink about 7 percent from the farm sale dried basis, whereas prunes do not shrink, but may increase in weight, because of the absorption of moisture.

The equivalents most difficult to determine are those for meat products and certain other commodities falling into Class II.

Retail prices are available only for the most important meat products. It was necessary to compare the farm values of 100 pounds live weight of beef cattle, hogs, and lamb with the retail values of the principal products for which retail prices were available in amounts actually obtained from 100 pounds live weight, or to use the retail prices of the products quoted in estimating the value of certain additional products for which no retail prices are available. It has not been practicable to estimate the total retail value of all products and by-products for any of these three species of livestock.[5] By-products like hides pass through many processing operations before sale to the consumer as finished goods at prices only remotely connected with prices of edible products.

For these reasons, in the case of meat products, the farm value as a percentage of the retail value is always larger than the actual farmer's share of the consumer's dollar spent for retail meat products. On the other hand, the farm prices of beef cattle and of lambs on which the farm values are based represent all grades of livestock, while the retail prices of beef and lamb probably represent better than average grade meats.

An additional difficulty is due to the fact that all margins are computed on a concurrent farm-and-retail value basis, that is, the farm price of 100 pounds of hogs for a given month is compared with the retail value of pork products in the same month. Particularly in the case of pork, certain products require time for

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5/ For a more comprehensive study of margins on meat products, including a breakdown into portions going to packer, retailer, etc., see "What Becomes of the Consumer's Meat Dollar", by Tobin and Greer, Univ. of Chicago Press, Jan. 1936. The basic data used, 1925-34 are from the Census of Manufactures. More detailed and comprehensive data on margins for livestock and other farm products are being obtained at the present time by the Federal Trade Commission as a part of an inquiry concerning farm income.

curing and processing so that the actual sale of a portion of pork products may not occur until one or two or more months after the hogs have been sold by the farmer. The proper comparison would be between the price paid the farmer for certain hogs and the retail values of the products from the same hogs at the time they were purchased by the consumer. So far, little progress has been made in the study of these time lags betwen sale of livestock by the farmer and purchase of the meat products by the consumer.

Beef products. From 100 pounds of Good grade beef cattle are obtained about 46.4 pounds of retail beef cuts, plus about 8 pounds of minor edible products, also hide and a small amount of other by-products. The Bureau of Labor Statistics publishes retail prices for five of the principal cuts amounting to 15.4 pounds per 100 pounds live weight. From prices of these five cuts it has been possible to estimate the total retail value of the 46.4 pounds of all important cuts obtained from 100 pounds of beef cattle with a fair degree of accuracy. The manner of arriving at these estimates is discussed on page 3 of the earlier report entitled "The Margin Between Farm Prices and Retail Prices of Ten Foods." No allowance was made in either the farm price or retail value for the value of inedible and minor edible products and by-products.

Pork products. The Bureau of Labor Statistics has published retail prices of pork products as follows: strip bacon since January 1935; whole ham, loin roast, and salt pork since January 1934; and lard, sliced ham, sliced bacon, and pork chops since January 1913. Quotations on smoked picnic hams since January 1934 are available on request. One hundred pounds of Good grade live hogs is estimated to yield, on the average, 12.7 pounds of whole smoked ham, 5.2 pounds of smoked picnic ham, 8.6 pounds of loin roast, 11.1 pounds of strip bacon, and 15.0 pounds of lard, a total of 52.6 pounds of principal products. In addition, certain minor products are obtained, - about 4 pounds of Boston butts, 2 pounds of spare ribs, 5 pounds of plate, jowls, and trimmings, and 5 pounds of edible offal and miscellaneous products. The retail value used in this study since January 1935, is the value of the 52.6 pounds of principal products and for earlier years it is an estimate of the value of these products based upon the available retail prices of pork products. (For additional description of the method of estimating the retail value of pork products in years prior to 1935, see page 5 of "The Margin Between Farm Prices and Retail Prices of Ten Foods"). No allowance has been made for variation in lard yield per 100 pounds of hogs, which in 1935 was far below normal.

Lamb products. Prior to 1934, retail prices of lamb cuts were published only for leg of lamb. Since January 1934 the Bureau of Labor Statistics has reported U. S. average retail prices of leg of lamb, lamb rib chops, lamb breast (stew), and lamb square chuck. One hundred pounds of Good grade of live lamb yields about 46.3 pounds of principal retail cuts, plus about 2.5 pounds of edible offal, and the pelt. The 46.3 pounds of principal cuts are composed of 5.4 pounds of loin chops, 5.4 pounds of rib chops, 16.2 pounds of leg (long cut), 12.1 pounds of square chuck (neck on), and 7.2 pounds of breast, brisket, shank, and flank. The price of loin chops was estimated from the price of rib chops by the following relation:

(Loin chop price in cents) = 11.85 + .883 x (rib chops price in cents)

based upon the Division of Livestock, Meats and Wool retail price series for New York City. Breast, brisket, shank, and flank were all valued at the Bureau of Labor Statistics retail price of lamb breast (stew). No retail value of lamb products was worked out for years before 1934, since only one retail quotation was available for that period. The value of inedible lamb products at the plant is frequently a large proportion of the total retail value of all edible lamb products, amounting to more than 30 percent of the value of edible products in some cases.

In the process of manufacturing the various cereal products (white flour, corn meal, rolled oats, corn flakes, wheat cereal, hominy grits and macaroni) a variety of by-products are obtained, most of which are used as livestock feeds. By-products are also obtained in the cleaning and polishing of rice, in the manufacture of peanut butter, and in the processing of granulated sugar from beets and from cane.

The retail price of one unit of each of the foods mentioned in the preceding paragraph has been compared directly with the value of an equivalent quantity of farm produce required to yield the retail unit, neglecting values of any by-products. These equivalents are shown in table 5. The farm value as percentage of retail value is accordingly somewhat higher than the actual farmer's share of the consumer's dollar spent for these products.

White bread, rye bread, whole-wheat bread, and soda crackers can be made according to a number of formulas, using varying proportions of flour, shortenings, milk products, etc. The farm-produce equivalents used for the bakery products are based entirely upon the quantity of flour required, neglecting other constituents. The comparable farm value is the value of a quantity of wheat or rye needed to obtain the flour that is used in 1 pound of the particular bakery product under consideration. The fact that by-products are obtained in the processing of flour compensates to some extent for the omission of other constituents of bakery products.

In the farm equivalent of baked beans with pork, values of pork and tomato paste were neglected. In farm-equivalent values of canned peaches and canned pears, the value of sugar was neglected.

For foods included in Class III in general, farm value as percentage of retail value is somewhat lower then the actual farmer's share of the consumer's dollar.

The Bureau of Labor Statistics has published retail prices of whole milk, butter, and cheese since January 1913, and prices of evaporated milk since January 1919. The farmer sells dairy products principally in the forms of wholesale whole milk and butterfat, with sales of farm butter and whole milk direct to consumers in small towns and city suburbs. During recent years, farm sales of wholesale milk and of butterfat have averaged about 49 percent of the former and 51 percent of the latter in terms of whole-milk equivalent. Over the same period consumption of dairy products, excluding whole milk retailed by farmers and farm butter sold, has been about 33 percent fresh milk, 7 percent cheese, 5 percent evaporated milk, and 55 percent butter and other products, in terms of whole milk equivalent.[6]

Using the data outlined above, the farm value of 100 pounds of milk equivalent was estimated to be equal to the value of 49 pounds of wholesale whole milk plus the value of 2.0 pounds of butterfat. The retail value of 100 pounds of milk equivalent was taken equal to the total value of 15.7 quarts of fresh milk, 0.7 pound of cheese, 2.6 pounds of butter and 2.5 14½-ounce cans of evaporated milk. For the years before 1919 when the price of evaporated milk was not obtained, the value of 2.9 pounds of butter was used.

Annual Expenditure for 58 Foods by a Typical Workingman's Family

In table 8 are shown estimates of annual expenditures for 58 foods and of the equivalent farm value, based upon retail prices and equivalent farm values (given in tables 10 to 42) and estimates of annual family consumption (table 6) of each food.

The quantities of each of the foods considered in this study, purchased during 1 year by an average workingman's family, were obtained from a Bureau of Labor Statistics survey of Cost of Living in the United States, made in 1918-19. The survey represents principally the calendar year 1918, and covered about 12,000 families. Summaries for the United States give annual consumption per family of 128 food items. Table 1 on p. 5 shows the importance of the 58 foods in the family food budget. For certain foods, some adjustment in consumption weights was necessary before the yearly expenditures were computed. No attempt was made to revise these consumption data on the basis of probable shifts in consumption habits since 1918. Yearly consumption per family of the 58 foods considered in this study are shown in table 6.

Retail values of meats used in this study for comparison with farm value of livestock consists of average retail prices of pork products, of beef products, and of lamb products weighted by the

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[6] Milk equivalents used in this study are:
1 qt. fresh milk = 2.15 lbs. of whole milk
1 lb. cheese = 10 lbs. " " "
1 lb. butter = 21 lbs. " " "
1 lb. evaporated milk = 2.2 lbs. " " "
1 lb. butterfat = 25.4 lbs. " " "

Table 6.- Annual consumption of 58 foods by a typical workingman's family [1]

Commodity	Annual consumption per family
Beef products (5 foods)	178 pounds
Pork products (5 foods)	145 pounds
Lamb products (4 foods)	18 pounds
Dairy products (4 foods)	2530 lbs. of milk equivalent
Hens	24 pounds
Eggs, fresh	61 dozen
Bread, white	395 pounds
Bread, rye	32 pounds
Bread, whole wheat	5 pounds
Soda crackers	15 pounds
Flour, white	260 pounds
Corn meal	69 pounds
Rolled oats	40 pounds
Corn flakes	12 8-oz. packages
Wheat cereal	4 28-oz. packages
Rice	32 pounds
Macaroni	21 pounds
Hominy grits	6 24-oz. packages
Apples	204 pounds
Oranges	7 dozen
Lemons	4 dozen
Beans, green	37 pounds
Cabbage	65 pounds
Carrots	27 bunches
Celery	9 stalks
Lettuce	28 heads
Onions	66 pounds
Potatoes, white	706 pounds
Potatoes, sweet	54 pounds
Spinach	10 pounds
Peaches, canned	2 No. 2½ cans
Pears, canned	1 No. 2½ can
Asparagus, canned	1/5 No. 2 can
Pork & beans, canned	7 1-lb. cans
Green beans, canned	2 No. 2 cans
Corn, canned	8 No. 2 cans
Peas, canned	8 No. 2 cans
Tomatoes, canned	14 No. 2 cans
Prunes	11 pounds
Raisins	9 pounds
Navy beans	23 pounds
Beet sugar	30 pounds
Cane sugar	5 pounds domestic prod.
Peanut butter	4 pounds

[1] Source of data is U. S. Bureau of Labor Statistics Cost of Living Survey, 1918-19.

proportions of each product obtained from 100 pounds of Good grade live animal. Since it is impossible to calculate margins on various meat cuts separately, the yearly average retail price per pound of all principal beef products combined was obtained (see p. 22 and table 10). This composite price of beef products was multiplied by the total number of pounds of fresh beef cuts purchased per family in one year to obtain the yearly expenditure for beef products.

For example, in 1935 the average retail value of all principal beef cuts was 29.8 cents per pound and the farm value of the equivalent 2.16 pounds of live beef cattle was 13.5 cents (see table 10). The annual consumption of beef products per family is 178 pounds (see table 6). Multiplying 29.8 cents by 178 gives $53.04 as the annual expenditure per family for beef products in 1935. Multiplying 13.5 cents by 178 gives $24.03 as the equivalent farm value of the 384 pounds (2.16 x 178) of live beef cattle required to supply the 178 pounds of retail beef cuts. Annual family expenditures and equivalent farm values for pork products including lard and for lamb products were obtained in a similar manner.

The quantities of fresh milk, butter, cheese, and other dairy products consumed per family were converted to milk equivalents and the total number of hundredweight of milk equivalent consumed per year multiplied by the retail value of 100 pounds of milk equivalent of retail dairy products (see table 12) to obtain annual expenditures per family for dairy products.

The annual consumption figures shown in table 6 generally refer to the consumption of the food indicated as reported in the consumption survey summary of the Bureau of Labor Statistics. In some cases, however, consumption represents the total quantity consumed of a group of foods, including the particular food indicated. Consumption of macaroni includes spaghetti and noodles. The consumption of whole-wheat bread was assumed equal to the reported consumption of bread other than white and rye. Reported consumption of spinach and kale was used for consumption of spinach. Consumption of canned fruit other than peaches and pineapple was taken to represent consumption of canned pears. Similarly, consumption of canned vegetables other than pork and beans, peas, corn, tomatoes, and asparagus was assumed to represent consumption of canned green beans.

Of the total quantity of sugar consumed in the United States, about one-fourth is produced domestically. This domestic production of sugar is composed of about 15 percent cane and the remainder is beet sugar. The consumption figures given for cane sugar and for beet sugar are estimates of annual family consumption of sugar processed from sugar cane and sugar beets grown by farmers in the United States.

In computing the total yearly family expenditure for the foods considered in this study, the number of units of each food consumed, as shown in table 6, was multiplied by the retail value of one unit of that food given in tables 10 to 42, and these expenditures combined for all foods. The number of units consumed was multiplied by the equivalent farm value per retail unit for each food (tables 10 to 42) and these farm values combined for all foods to obtain the amount received by the farmer for produce equivalent to the annual family food consumption. An example of the method of carrying out this computation is given on page 26 for beef products.

It was possible to determine expenditure for all of the 58 foods for 1935 only, since in earlier years retail and farm-equivalent prices were not available for all items (see table 7). However, by assuming that yearly changes in total farm value and actual margin for all 58 foods was proportional to yearly changes in total farm value and actual margin for the largest comparable number of foods having price data available in each pair of adjacent years, it was possible to estimate family expenditure for and equivalent farm value of 58 foods back to 1913. Several retail and farm-price series first became available in 1918-19, so that estimates of values of 58 foods for earlier years are correspondingly less reliable than for the period 1919-34. Although the retail value of 58 foods was derived in this manner from farm value and margin estimates for the years 1913 to 1934, it agrees very closely with the retail food price index of the Bureau of Labor Statistics, as shown in figure 5.

Description of Certain Tables

Tables are here given showing the retail value, equivalent farm value, actual margin, and farm value as percentage of retail value for selected commodities included in the retail price reports of the Bureau of Labor Statistics. These tables are for the period 1913-35. For 1935 and 1936 they are arranged by months. In using the tables the following explanation will be of help:

Retail Value of one retail unit for all commodities except beet sugar is computed from U. S. monthly averages of prices paid at retail as published by the U. S. Bureau of Labor Statistics. Prices used for calendar years are simple arithmetic averages of 12 monthly prices January-December, except for those commodities first reported January 30, 1934, for which the 1934 average is the simple arithmetic mean of the 11 months February to December. All foods currently reported by the Bureau of Labor Statistics which are obtained from domestic farm products are listed in table 7, where is noted the first month or year for which the price was published. Since August 15, 1933, retail prices have been obtained as of every second Tuesday, and the monthly prices used in this study are linear interpolations for the 15th of the month between the two adjacent Tuesday prices. Since October 8, 1935, Bureau of Labor Statistics retail prices by cities have been combined into U. S. averages using weights proportional to family consumption in and population of each city. At some time in the near future comparable U. S. average prices for earlier periods computed by the same weighting process will be published. Pending release of these weighted prices the U. S. averages used in this study are the simple averages published

Table 7-a.- Dates on which retail and farm price data are first available

Commodity	Retail: U.S. Bureau of Labor price first reported		Farm equivalent: Farm product	Farm price first estimated		
	Monthly	Yearly		Monthly	Yearly	Av. seasonal
Meats, fats and oils						
Beef-Sirloin steak	Jan. 1913	1907	Beef cattle	Jan.1910	1867	
Round steak	Jan. 1913	1890				
Rib roast	Jan. 1913	1907				
Chuck roast	Jan. 1913					
Plate	Jan. 1913					
Liver	Jan. 1935					
Pork-Ham, sliced	Jan. 1913	1890	Hogs, live	Jan.1910	1867	
Chops	Jan. 1913					
Bacon, sliced	Jan. 1913	1890				
Lard, pure	Jan. 1913	1890				
Ham, whole	Feb. 1934	1890				
Ham, picnic	Feb. 1934					
Loin roast	Feb. 1934					
Bacon, strip	Jan. 1935					
Salt pork	Feb. 1934					
Veal-Cutlets	Feb. 1934		Veal calves	Jan.1910		
Lamb-Leg	Jan. 1913		Lamb	Jan.1910	(Sheep-1867)	
Rib chops	Feb. 1934					
Breast	Feb. 1934					
Chuck or shoulder	Feb. 1934					
Lard compound	Feb. 1934					
Veg. lard compound	Jan. 1919					
Oleomargarine	Jan. 1919					
Salad oil	Jan. 1935					
Dairy & poultry products						
Butter	Jan. 1913	1890	Butterfat	Jan.1909		
Cheese	Jan. 1913					
Milk, fresh, grade A, del.	Jan. 1913	1890	Milk (wholesale)	Jan.1910		
Milk, evaporated	Jan. 1919		Milk (wholesale)	Jan.1910		
Cream	Mar. 1935					
Roasting chickens	Jan. 1913	1890	Chickens	Feb.1909		
Eggs	Jan. 1913	1890	Eggs	Feb.1909		
Bakery products						
Bread, white	Jan. 1913		Wheat	Jan.1908	1866	
Bread, rye	Sept.1933		Rye	Jan.1908	1866	
Bread, whole wheat	Jan. 1934		Wheat	Jan.1908	1866	
Cake, pound	Mar. 1934					
Soda crackers	Jan. 1935		Wheat	Jan.1908	1866	
Cereal foods						
Flour, white, wheat	Jan. 1913	1890	Wheat	Jan.1908	1866	
Corn meal	Jan. 1913	1890	Corn	Jan.1908	1866	
Rolled oats	Jan. 1919		Oats	Jan.1908	1866	
Corn flakes	Jan. 1919		Corn	Jan.1908	1866	
Wheat cereal	Jan. 1919		Wheat	Jan.1908	1866	
Rice	Jan. 1913		Rice	Aug.1909		
Macaroni	Jan. 1919		Durum wheat	Aug.1929		
Hominy grits	Jan. 1913		Corn	Jan.1908		

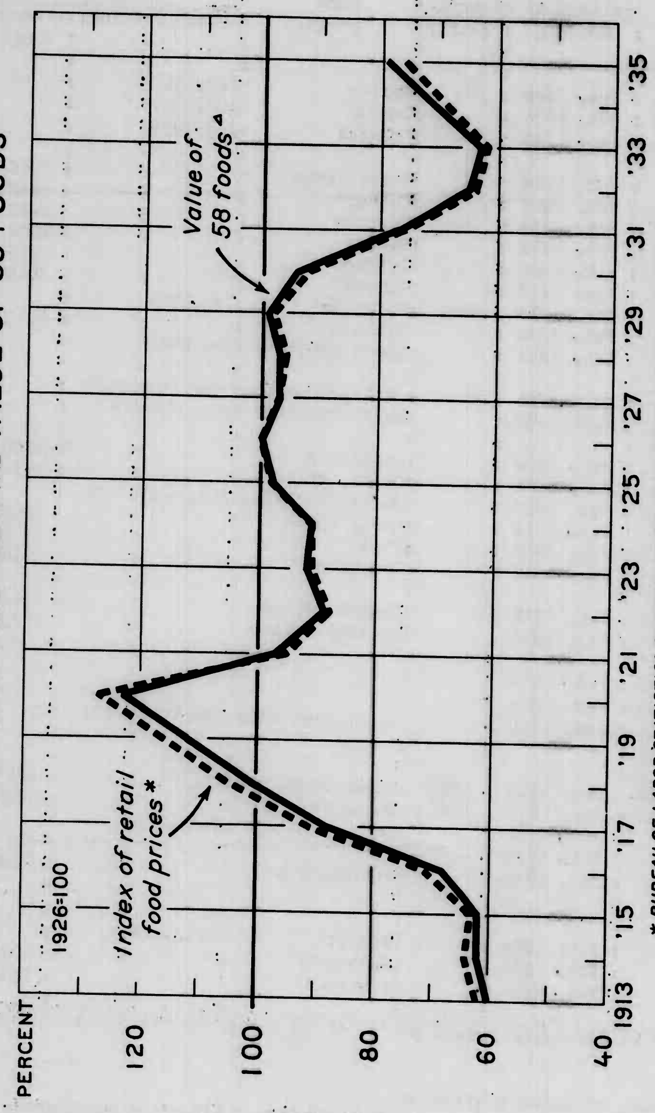
Table 7-b.- Dates on which retail and farm price data are first available

Commodity	Retail: U.S. Bureau of Labor price first reported		Farm equivalent: Farm product	Farm price first estimated		
	Monthly	Yearly		Monthly	Yearly	Av. seasonal
Fruits, fresh						
Apples	Feb. 1934		Apples	Jan.1910		
Lemons	Feb. 1934		Lemons	Aug.1909		
Oranges	Jan. 1919		Oranges	Aug.1909		
Vegetables, fresh						
Beans, green	Feb. 1934		Beans, snap			1918
Cabbage	Feb. 1934		Cabbage			1918
Carrots	Feb. 1934		Carrots			1923
Celery	Feb. 1934		Celery			1918
Lettuce	Feb. 1934		Lettuce			1918
Onions	Jan. 1915		Onions			1918
Potatoes	Jan. 1913	1890	Potatoes	Jan.1908		
Spinach	Feb. 1934		Spinach			1919
Sweet potatoes	Feb. 1934		Sweet potatoes	Jan.1910		
Fruits, canned						
Peaches	Sept.1933		Calif.clingstone for canning)			
Pears	Sept.1933		Bartlett pears for canning)			
Vegetables, canned						
Asparagus	Feb. 1934		Asparagus			1918
Beans, green	Feb. 1934		Beans, green			1918
Beans, with pork	Jan. 1919		Beans, Michigan	Jan.1910		
Corn	Jan. 1919		Corn, sweet			1918
Peas	Jan. 1919		Peas			1918
Tomatoes	Jan. 1919		Tomatoes			1918
Fruit, dried						
Prunes	Jan. 1915		Prunes, dried			1919
Raisins	Jan. 1915		Raisins, dried			1919
Vegetables, dried						
Black-eyed peas	Feb. 1934					
Lima beans	Feb. 1934					
Navy beans	Jan. 1915		Beans, dry, edible	Jan.1910		
Sugar and sweets						
Granulated sugar-beet[1]	Jan. 1913	1890	Sugar beets			1919
Granulated sugar-cane	Jan. 1913	1890	Sugar cane			1924
Corn sirup	Feb. 1934		Corn	Jan.1908		
Molasses	Feb. 1934					
Strawberry preserves	Jan. 1935		Strawberries			1918
Miscellaneous foods						
Peanut butter	Feb. 1934		Peanuts	Jan.1910		
Tomato juice	Feb. 1934		Tomatoes			1918
Tomato soup	Feb. 1934		Tomatoes			1918

[1] Price obtained by averaging retail prices of 17 cities of the North Central and Western States.

Source: Retail - Bureau of Labor Statistics
Farm - Bureau of Agr. Economics., Div. of Crop & Livestock Estimates.

RETAIL FOOD PRICE AND RETAIL VALUE OF 58 FOODS



* BUREAU OF LABOR STATISTICS ORIGINAL UNREVISED SERIES. 1935 ESTIMATED BY RATIO OF CHANGE FROM 1934 IN MONTHLY INDEXES

Δ RETAIL VALUE OF 58 FOODS FOR ALL YEARS EXCEPT 1935 DERIVED FROM ESTIMATES OF FARM VALUE AND OF ACTUAL MARGIN OF 58 FOODS

U. S. DEPARTMENT OF AGRICULTURE NEG. 31095 BUREAU OF AGRICULTURAL ECONOMICS

FIGURE 5.- THIS CHART INDICATES THAT THE DERIVATION OF RETAIL VALUE OF 58 FOODS FROM FARM VALUE AND MARGIN OF A SMALLER NUMBER OF FOODS FOR YEARS PRIOR TO 1935 DID NOT INTRODUCE ANY APPRECIABLE DIVERGENCE FROM THE RETAIL VALUE OF ALL FOODS INCLUDED IN THE BUREAU OF LABOR STATISTICS RETAIL FOOD PRICE INDEX.

currently by the Bureau of Labor Statistics. Although simple U. S. averages are not strictly comparable with the averages obtained when using consumption and population weights, it is believed that in most cases the differences will be small.

Farm Value is computed from U. S. average prices received by farmers as published by the Division of Crop and Livestock Estimates, except as noted in the tables. The month or year for which the price of each farm product used for food was first estimated is shown in table 7. For most important products marketed throughout the year, prices are available as of the 15th of each month, while for a number of products there is published only a seasonal average price. The Farm Value is the value of a quantity of farm produce equivalent to, or yielding, one retail unit of the corresponding commodity as retailed. (See discussion of Equivalents in text, pp. 18 to 24.) In all cases when monthly farm prices were available, farm values and retail values were computed using unweighted average prices for identical periods. For certain foods when the equivalent farm product price was given for the season, such as for fresh vegetables, the retail and farm values are based upon average retail and seasonal farm prices for the same year. For other foods, such as canned vegetables, canned fruits, prunes, and raisins, the retail value for a given year was compared with farm value based upon a simple average of seasonal growers' prices for the given and the preceding years. Farm values of sugar beets and sugar cane for a given season were compared with retail sugar values the following year.

Actual Margin is the actual difference between Retail Value of one retail unit and the Farm Value (amount received by the farmer) for a quantity of farm produce equivalent to one retail unit. This actual margin represents the amount per retail unit paid for processing, transportation, and distribution. Since no allowance is made for processing taxes in the tables and charts of this report, the tax is included in the margin of each commodity affected.

Farm Value as Percentage of Retail Value of a given food item should not generally be interpreted as measuring exactly the farmer's share of the consumer's dollar spent for that food item because no allowance has been made for the value of by-products. Before interpreting this percentage, the reader should refer to the section on Equivalents, pp. 18 to 24, where the 58 foods considered in this study are divided into three classes. In general, for dairy products and foods in Classes I and III, farm value as a percentage of retail value is probably somewhat less than the farmer's share of the consumer's dollar spent for these foods. In the case of foods in Class II, including meat products, grain products, sugar and peanut butter, farm value as the percentage of retail value is probably somewhat larger than the actual farmer's share of the consumer's dollar. In the case of beef products and lamb products, retail prices probably represent meats above average grade, while the farm prices of beef cattle and of lambs include all grades, thereby offsetting, to an undetermined extent, the omission of minor products and by-products.

Table 8.- Value of 58 Foods, 1913-1935

Estimated retail value and equivalent farm value of quantities purchased annually by a typical American workingman's family 1/

Year	Farm value	Retail value	Margin	Farm value as percentage of retail value
	Dollars	Dollars	Dollars	Percent
1913	134	252	118	53
1914	137	258	121	53
1915	134	258	124	52
1916	155	285	130	54
1917	223	370	147	60
1918	245	424	179	58
1919	267	470	203	57
1920	272	514	242	53
1921	179	404	225	44
1922	170	374	204	45
1923	173	384	211	45
1924	170	381	211	45
1925	198	410	212	48
1926	202	418	216	48
1927	190	406	216	47
1928	194	407	213	48
1929	195	415	220	47
1930	171	391	220	44
1931	121	322	201	38
1932	88	270	182	33
1933	92	264	172	35
1934	108	295	187	37
1935	138	331	193	42

1/ See discussion in section on Family Expenditures pp. 24 to 27.

No allowance is made for processing taxes on wheat, rye, rice, hogs, corn, peanuts, and sugar, which, on the quantities of those products included in annual family purchases, amounted to about $2 in 1933, $10 in 1934, and $11 in 1935.

Table 9.- Indexes of farm value, retail value, and margins for 58 foods combined and the farmer's share of the consumer's food dollar

Year and month	Index of farm value 1926 = 100	Index of retail value 1926 = 100	Index of margin 1926 = 100	Farmer's share of consumer's dollar
1913	66	60	55	53
1914	68	62	56	53
1915	66	62	57	52
1916	77	68	60	54
1917	110	89	68	60
1918	121	101	83	58
1919	132	112	94	57
1920	135	123	112	53
1921	89	97	104	44
1922	84	89	94	45
1923	86	92	98	45
1924	84	91	98	45
1925	98	98	98	48
1926	100	100	100	48
1927	94	97	100	47
1928	96	97	99	48
1929	97	99	102	47
1930	85	94	102	44
1931	60	77	93	38
1932	44	65	84	33
1933	46	63	80	35
1934	53	71	87	37
1935	68	79	89	42
1935:				
Jan.	65	77	88	41
Feb.	69	79	88	42
Mar.	68	78	87	42
Apr.	70	80	89	43
May	68	80	90	41
June	65	80	93	39
July	64	78	91	40
Aug.	67	78	88	42
Sept.	70	79	88	43
Oct.	70	80	89	42
Nov.	71	81	90	42
Dec.	73	82	90	43
1936:				
Jan.	73	82	90	43
Feb.	74	80	86	45
Mar.	70	79	86	43
Apr.	70	79	86	43
May	68	79	89	42

Table 10.- Beef -- Farm-to-retail price spreads

Year and month	1/ Farm value of 2.16 lbs. of beef cattle	2/ Average retail price per pound of all beef cuts	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	Percent
1913	12.8	19.9	7.1	64
1914	13.5	20.6	7.1	66
1915	13.0	20.2	7.2	64
1916	14.0	21.4	7.4	65
1917	17.6	25.2	7.6	70
1918	20.4	31.7	11.3	64
1919	21.0	33.0	12.0	64
1920	18.3	33.3	15.0	55
1921	11.9	28.6	16.7	42
1922	11.7	27.1	15.4	43
1923	12.1	28.1	16.0	43
1924	12.0	28.6	16.6	42
1925	13.4	29.4	16.0	46
1926	13.9	30.1	16.2	46
1927	15.6	31.3	15.7	50
1928	19.7	35.8	16.1	55
1929	19.8	37.9	18.1	52
1930	16.2	34.9	18.7	46
1931	11.5	28.9	17.4	40
1932	8.8	24.0	15.2	37
1933	7.7	21.0	13.3	37
1934	8.3	22.6	14.3	37
1935	13.5	29.8	16.3	45
1935:				
Jan.	10.9	25.5	14.6	43
Feb.	12.9	27.6	14.7	47
Mar.	14.2	29.6	15.4	48
Apr.	14.5	30.4	15.9	48
May	14.7	31.2	16.5	47
June	14.2	31.4	17.2	45
July	13.4	30.4	17.0	44
Aug.	13.6	30.3	16.7	45
Sept.	13.9	30.9	17.0	45
Oct.	13.5	30.9	17.4	44
Nov.	13.1	29.6	16.5	44
Dec.	13.3	29.5	16.2	45
1936:				
Jan.	13.4	30.2	16.8	44
Feb.	13.4	28.8	15.4	47
Mar.	13.2	28.2	15.0	47
Apr.	13.5	28.4	14.9	48
May	13.0	28.2	15.2	46

1/ 100 lbs. of good grade live beef cattle yields 46.4 lbs. of all retail cuts, giving 2.16 lbs. live weight per pound of retail cuts.

2/ Average retail price per pound obtained by weighting the price of each cut by weights proportional to quantities of these cuts obtained per 100 lbs. of good grade beef cattle. These retail prices probably represent good quality meats obtained from good grade beef steers and are not strictly comparable with the farm price of beef cattle which may include cows, bulls and other low grade stock.

Table 11.- Pork products -- Farm-to-retail price spreads

Year and month	1/ Farm value of 1.90 lbs. of live hogs	2/ Average retail price per pound of principal pork products	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1913	14.2	17.7	3.5	80
1914	14.4	17.9	3.5	80
1915	12.5	17.1	4.6	73
1916	15.6	19.2	3.6	81
1917	25.8	27.3	1.5	95
1918	30.2	33.7	3.5	90
1919	30.8	36.7	5.9	84
1920	24.7	33.9	9.2	73
1921	14.9	26.4	11.5	56
1922	16.0	25.3	9.3	63
1923	13.5	24.5	11.0	55
1924	14.2	24.6	10.4	58
1925	20.9	28.7	7.8	73
1926	22.4	30.6	8.2	73
1927	18.4	28.4	10.0	65
1928	16.6	27.1	10.5	61
1929	17.9	27.4	9.5	65
1930	16.9	26.4	9.5	64
1931	11.2	22.1	10.9	51
1932	6.6	15.7	9.1	42
3/ 1933	6.7	14.5	7.8	46
3/ 1934	8.1	18.2	10.1	45
3/ 1935	16.1	27.3	11.2	59
1935: 3/				
Jan.	13.1	22.7	9.6	58
Feb.	13.5	23.7	10.2	57
Mar.	15.4	24.9	9.5	62
Apr.	15.0	25.3	10.3	59
May	15.0	25.8	10.8	58
June	15.9	26.9	11.0	59
July	16.0	27.4	11.4	58
Aug.	19.4	30.2	10.8	64
Sept.	19.5	31.4	11.9	62
Oct.	18.2	31.0	12.8	59
Nov.	16.2	29.4	13.2	55
Dec.	16.6	28.8	12.2	58
1936:				
Jan.	16.9	27.9	11.0	61
Feb.	17.7	26.8	9.1	66
Mar.	17.4	26.3	8.9	66
Apr.	17.8	26.3	8.5	68
May	16.3	26.1	9.8	62

1/ 100 lbs. of good grade live hogs yields 52.6 lbs. of principal retail pork products, giving 1.90 lbs. live weight per pound of retail products.

2/ Average retail price per pound obtained by weighting the price of each product by weights proportional to quantities of these products obtained per 100 lbs. of good grade hogs.

See discussion of pork products in section on Equivalents, p. 22.

3/ No allowance is made for processing taxes per 100 lbs. live weight, which were: 50¢, beginning Nov. 5, 1933; $1.00, beginning Dec. 1, 1933; $1.50, beginning Feb. 1, 1934; and $2.25 from Mar. 1, 1934 to Jan. 6, 1936. These taxes are included in the margins as additional costs of processing.

Table 12.- Dairy products -- Farm-to-retail price spreads

Year and month	Farm value of 100 lbs. 1/of milk equivalent	Retail value of 100 lbs. 2/of milk equivalent	Actual margin	Farm value as percentage of retail value
	dolls.	dolls.	dolls.	percent
1913	1.47	2.66	1.19	55
1914	1.42	2.60	1.18	55
1915	1.44	2.58	1.14	56
1916	1.53	2.75	1.22	56
1917	1.89	3.40	1.51	56
1918	2.30	4.11	1.81	56
1919	2.63	4.86	2.23	54
1920	2.80	5.09	2.29	55
1921	2.16	4.19	2.03	52
1922	1.97	3.82	1.85	52
1923	2.23	4.15	1.92	54
1924	2.04	4.02	1.98	51
1925	2.10	4.14	2.04	51
1926	2.07	4.10	2.03	50
1927	2.13	4.19	2.06	51
1928	2.17	4.23	2.06	51
1929	2.16	4.19	2.03	52
1930	1.83	3.88	2.05	47
1931	1.37	3.26	1.89	42
1932	1.01	2.76	1.75	37
1933	1.01	2.70	1.69	37
1934	1.20	2.94	1.74	41
1935	1.40	3.13	1.73	45
1935:				
Jan.	1.47	3.19	1.72	46
Feb.	1.60	3.31	1.71	48
Mar.	1.50	3.21	1.71	47
Apr.	1.55	3.27	1.72	47
May	1.39	3.12	1.73	45
June	1.25	3.04	1.79	41
July	1.21	2.98	1.77	41
Aug.	1.23	2.99	1.76	41
Sept.	1.30	3.03	1.73	43
Oct.	1.33	3.03	1.70	44
Nov.	1.46	3.15	1.69	46
Dec.	1.57	3.23	1.66	49
1936:				
Jan.	1.63	3.30	1.67	49
Feb.	1.65	3.33	1.68	50
Mar.	1.53	3.26	1.73	47
Apr.	1.48	3.20	1.72	46
May	1.36	3.11	1.75	44

1/ Farm value of 100 lbs. of milk equivalent estimated as equal to value of 49 lbs. wholesale milk plus value of 2.0 lbs. butterfat.

2/ Retail value of 100 lbs. of milk equivalent estimated as the combined values of 15.7 quarts of whole milk, .7 lbs. of cheese, 2.6 lbs. of butter, and 2.5 14½-oz. cans of evaporated milk.

Table 13.- Hens -- Farm to retail price spreads

Year and month	1/Farm value of 1.11 lbs. of hens	Retail value of 1 lb. of hens	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1913	13.2	21.3	8.1	62
1914	13.7	21.8	8.1	63
1915	13.0	20.8	7.8	62
1916	14.9	23.6	8.7	63
1917	18.8	28.7	9.9	66
1918	23.9	37.8	13.9	63
1919	27.0	41.1	14.1	66
1920	28.7	44.7	16.0	64
1921	23.3	39.7	16.4	59
1922	21.2	36.0	14.8	59
1923	21.1	35.0	13.9	60
1924	21.3	35.3	14.0	60
1925	22.6	36.7	14.1	62
1926	24.3	38.8	14.5	63
1927	22.6	36.9	14.3	61
1928	23.6	37.4	13.8	63
1929	24.9	39.7	14.8	63
1930	20.6	35.6	15.0	58
1931	17.2	31.0	13.8	55
1932	12.9	24.7	11.8	52
1933	10.7	20.9	10.2	51
1934	12.4	24.2	11.8	51
1935	16.5	29.2	12.7	57
1935:				
Jan.	13.7	25.6	11.9	54
Feb.	14.9	27.3	12.4	55
Mar.	15.8	28.3	12.5	56
Apr.	17.2	29.2	12.0	59
May	17.4	29.9	12.5	58
June	17.3	30.0	12.7	58
July	15.6	28.2	12.6	55
Aug.	15.7	28.4	12.7	55
Sept.	17.1	30.1	13.0	57
Oct.	17.4	30.8	13.4	56
Nov.	17.6	30.9	13.3	57
Dec.	17.8	31.2	13.4	57
1936:				
Jan.	18.3	32.3	14.0	57
Feb.	18.8	32.5	13.7	58
Mar.	18.4	32.5	14.1	57
Apr.	18.8	32.9	14.1	57
May	18.4	32.6	14.2	56

1/ Estimating that there is 10% shrinkage between the weight of hens sold by the farmer and the weight purchased at retail gives 1.11 lbs. at the farm per pound at retail.

Table 14.- Eggs -- Farm-to-retail price spreads

Year and month	Farm Value of 1 doz. eggs	Retail Price of 1 doz. eggs	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1913	21.5	34.5	13.0	62
1914	22.6	35.3	12.7	64
1915	21.7	34.1	12.4	64
1916	24.7	37.5	12.8	66
1917	34.0	48.1	14.1	71
1918	39.9	56.9	17.0	70
1919	44.7	62.8	18.1	71
1920	47.8	68.1	20.3	70
1921	33.1	50.9	17.8	65
1922	28.1	44.4	16.3	63
1923	29.8	46.5	16.7	64
1924	30.3	47.8	17.5	63
1925	33.7	52.1	18.4	65
1926	31.5	48.5	17.0	65
1927	28.2	45.2	17.0	62
1928	30.3	46.4	16.1	65
1929	32.1	49.0	16.9	66
1930	25.1	41.0	15.9	61
1931	18.6	31.7	13.1	59
1932	16.0	27.2	11.2	59
1933	15.3	26.0	10.7	59
1934	18.4	29.9	11.5	62
1935	24.1	36.6	12.5	66
1935:				
Jan.	25.0	37.6	12.6	66
Feb.	25.6	37.8	12.2	68
Mar.	18.6	28.9	10.3	64
Apr.	20.0	29.5	9.5	68
May	21.4	31.8	10.4	67
June	21.0	32.2	11.2	65
July	21.7	33.5	11.8	65
Aug.	22.7	36.2	13.5	63
Sept.	26.4	40.5	14.1	65
Oct.	27.9	44.2	16.3	63
Nov.	30.1	44.5	14.4	68
Dec.	28.7	42.1	13.4	68
1936:				
Jan.	22.8	38.2	15.4	60
Feb.	23.8	37.9	14.1	63
Mar.	17.5	33.4	15.9	52
Apr.	16.8	29.8	13.0	56
May	18.1	30.9	12.8	59

Table 15.- White flour -- Farm-to-retail price spreads

Year and month	1/ Farm value of 1.41 lbs. of wheat	Retail price of 1 lb. of flour	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1913	1.9	3.3	1.4	58
1914	2.0	3.4	1.4	59
1915	2.6	4.2	1.6	62
1916	2.8	4.4	1.6	64
1917	4.8	7.0	2.2	69
1918	4.8	6.7	1.9	72
1919	5.1	7.2	2.1	71
1920	5.2	8.1	2.9	64
1921	2.7	5.8	3.1	47
1922	2.4	5.1	2.7	47
1923	2.3	4.7	2.4	49
1924	2.6	4.9	2.3	53
1925	3.5	6.1	2.6	57
1926	3.2	6.0	2.8	53
1927	2.8	5.5	2.7	51
1928	2.7	5.4	2.7	50
1929	2.4	5.1	2.7	47
1930	1.9	4.6	2.7	41
1931	1.1	3.6	2.5	31
1932	.9	3.2	2.3	28
1933	1.4	3.9	2.5	36
1934	1.9	4.9	3.0	39
1935	2.0	5.1	3.1	39
1935:				
Jan.	2.1	5.1	3.0	41
Feb.	2.1	5.0	2.9	42
Mar.	2.0	5.0	3.0	40
Apr.	2.1	5.0	2.9	42
May	2.1	5.0	2.9	42
June	1.8	4.9	3.1	37
July	1.8	4.9	3.1	37
Aug.	1.9	4.9	3.0	39
Sept.	2.0	5.0	3.0	40
Oct.	2.3	5.2	2.9	44
Nov.	2.1	5.4	3.3	39
Dec.	2.1	5.4	3.3	39
1936:				
Jan.	2.2	4.9	2.7	45
Feb.	2.2	4.8	2.6	46
Mar.	2.1	4.8	2.7	44
Apr.	2.0	4.7	2.7	43
May	1.9	4.6	2.7	41

1/ One 60 lb. bushel of wheat normally yields 42.6 lbs. of white flour, making 1.41 lbs. of wheat per pound of flour as retailed. No allowance is made for interseasonal variation in milling qualities of wheat.

No allowance is made for processing tax on wheat, which was 30¢ per bushel from July 9, 1933, to January 6, 1936, or about 0.7¢ per pound of flour.

Table 16.- White bread -- Farm-to-retail price spreads

Year and month	1/ Farm value of .97 lb. of wheat	Retail value of 1 lb. of bread	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1913	1.3	5.6	4.3	23
1914	1.4	6.3	4.9	22
1915	1.8	7.0	5.2	26
1916	1.9	7.3	5.4	26
1917	3.3	9.2	5.9	36
1918	3.3	9.8	6.5	34
1919	3.5	10.0	6.5	35
1920	3.6	11.5	7.9	31
1921	1.9	9.9	8.0	19
1922	1.7	8.7	7.0	20
1923	1.6	8.7	7.1	18
1924	1.8	8.8	7.0	20
1925	2.4	9.4	7.0	26
1926	2.2	9.4	7.2	23
1927	1.9	9.3	7.4	20
1928	1.8	9.1	7.3	20
1929	1.7	9.0	7.3	19
1930	1.3	8.7	7.4	15
1931	.8	7.6	6.8	11
1932	.6	6.8	6.2	9
1933	.9	7.1	6.2	13
1934	1.3	8.1	6.8	16
1935	1.4	8.3	6.9	17
1935:				
Jan.	1.4	8.3	6.9	17
Feb.	1.4	8.3	6.9	17
Mar.	1.4	8.3	6.9	17
Apr.	1.5	8.3	6.9	18
May	1.4	8.3	6.9	17
June	1.2	8.3	7.1	14
July	1.2	8.3	7.1	14
Aug.	1.3	8.3	7.0	16
Sept.	1.4	8.3	6.9	17
Oct.	1.6	8.3	6.7	19
Nov.	1.4	8.5	7.1	16
Dec.	1.5	8.6	7.1	17
1936:				
Jan.	1.5	8.5	7.0	18
Feb.	1.5	8.4	6.9	18
Mar.	1.5	8.3	6.8	18
Apr.	1.4	8.2	6.8	17
May	1.3	8.2	6.9	16

1/ The 42.6 lbs. of flour obtained from one 60 lb. bushel of wheat makes 62 pounds of white bread, according to a standard formula, so .97 lb. of wheat is equivalent to one pound of bread.

No allowance is made for the processing tax on wheat, which amounted to 30¢ per bushel from July 9, 1933 to January 6, 1936, or about 0.48¢ per pound of white bread.

Table 17.-Corn meal -- Farm-to-retail price spreads

Year and month	1/ Farm value of 1.5 lbs. of corn	Retail value of 1 lb. corn meal	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1913	1.7	3.0	1.3	57
1914	1.9	3.2	1.3	59
1915	1.9	3.3	1.4	58
1916	2.1	3.4	1.3	62
1917	3.8	5.8	2.0	66
1918	4.0	6.8	2.8	59
1919	4.2	6.4	2.2	66
1920	3.8	6.5	2.7	58
1921	1.5	4.5	3.0	33
1922	1.6	3.9	2.3	41
1923	2.1	4.1	2.0	51
1924	2.4	4.7	2.3	51
1925	2.7	5.4	2.7	50
1926	1.6	5.1	3.5	31
1927	2.1	5.2	3.1	40
1928	2.4	5.3	2.9	45
1929	2.3	5.3	3.0	43
1930	2.1	5.3	3.2	40
1931	1.3	4.6	3.3	28
1932	0.75	3.8	3.0	20
1933	1.0	3.7	2.7	27
1934	1.6	4.5	2.9	36
1935	2.1	5.1	3.0	41
1935:				
Jan.	2.3	5.0	2.7	46
Feb.	2.3	5.1	2.8	45
Mar.	2.2	5.1	2.9	43
Apr.	2.3	5.2	2.9	44
May	2.3	5.2	2.9	44
June	2.2	5.2	3.0	42
July	2.2	5.2	3.0	42
Aug.	2.2	5.2	3.0	42
Sept.	2.1	5.2	3.1	40
Oct.	1.9	5.1	3.2	37
Nov.	1.5	5.0	3.5	30
Dec.	1.4	4.9	3.5	29
1936:				
Jan.	1.4	5.0	3.6	28
Feb.	1.5	4.9	3.4	31
Mar.	1.5	4.9	3.4	31
Apr.	1.5	4.8	3.3	31
May	1.6	4.8	3.2	33

1/ One 56 lb. bushel of corn yields 50 lbs. of non-degermed corn meal or 33-1/3 lbs. of degermed corn meal. 1.5 lbs. of corn would make 1/3 lb. of non-degermed and 2/3 lb. of degermed corn meal.

No allowance is made for the processing tax on corn which was 5¢ per bushel from Nov. 5, 1933, to Jan. 6, 1936.

Table 18.-Rolled oats -- Farm-to-retail price spreads

Year and month	1/ Farm value of 1.78 lbs. of oats	Retail value of 1 lb. of rolled oats	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1919	3.9	8.7	4.8	45
1920	4.4	10.8	6.4	41
1921	2.0	10.0	8.0	20
1922	2.0	8.8	6.8	23
1923	2.3	8.8	6.5	26
1924	2.6	8.9	6.3	29
1925	2.5	9.2	6.7	27
1926	2.2	9.1	6.9	24
1927	2.5	9.0	6.5	28
1928	2.7	8.9	6.2	30
1929	2.5	8.9	6.4	28
1930	2.1	8.7	6.6	24
1931	1.4	8.1	6.7	17
1932	1.0	7.4	6.4	14
1933	1.4	6.0	4.6	23
1934	2.3	6.9	4.6	33
1935	2.2	7.6	5.4	29
1935:				
Jan.	3.0	7.4	4.4	41
Feb.	3.0	7.5	4.5	40
Mar.	3.0	7.7	4.7	39
Apr.	3.0	7.7	4.7	39
May	2.8	7.7	4.9	36
June	2.3	7.7	5.4	30
July	1.8	7.7	5.9	23
Aug.	1.5	7.7	6.2	19
Sept.	1.4	7.7	6.3	18
Oct.	1.5	7.4	5.9	20
Nov.	1.4	7.4	6.0	19
Dec.	1.4	7.4	6.0	19
1936:				
Jan.	1.4	7.4	6.0	19
Feb.	1.5	7.4	5.9	20
Mar.	1.5	7.4	5.9	20
Apr.	1.4	7.4	6.0	19
May	1.4	7.4	6.0	19

1/ One pound of rolled oats is obtained from 1.78 lbs. of oats.

Table 19.-Corn flakes -- Farm-to-retail price spreads

Year and month	1/ Farm value of 1.275 lbs. of corn	Retail value of 8 oz. pkg.	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1919	3.6	14.1	10.5	26
1920	3.2	14.3	11.1	22
1921	1.3	12.6	11.3	10
1922	1.4	10.0	8.6	14
1923	1.8	9.7	7.9	19
1924	2.1	10.0	7.9	21
1925	2.3	11.0	8.7	21
1926	1.4	10.9	9.5	13
1927	1.8	10.1	8.3	18
1928	2.0	9.6	7.6	21
1929	2.0	9.5	7.5	21
1930	1.8	9.4	7.6	19
1931	1.1	9.0	7.9	12
1932	.64	8.6	8.0	7
1933	.83	8.5	7.7	10
1934	1.4	8.6	7.2	16
1935	1.8	8.4	6.6	21
1935:				
Jan.	1.9	8.6	6.7	22
Feb.	1.9	8.8	6.9	22
Mar.	1.9	8.8	6.9	22
Apr.	1.9	8.6	6.7	22
May	1.9	8.5	6.6	22
June	1.9	8.4	6.5	23
July	1.9	8.4	6.5	23
Aug.	1.8	8.4	6.6	21
Sept.	1.8	8.4	6.6	21
Oct.	1.6	8.1	6.5	20
Nov.	1.3	8.1	6.8	16
Dec.	1.2	8.1	6.9	15
1936:				
Jan.	1.2	8.1	6.9	15
Feb.	1.3	8.1	6.8	16
Mar.	1.3	8.1	6.8	16
Apr.	1.3	8.1	6.8	16
May	1.4	8.1	6.7	17

1/ 8 ozs. of corn flakes are obtained from 1.275 lbs. of corn.

No allowance is made for the processing tax on corn, which was 5¢ per bushel from November 5, 1933, to Jan. 6, 1936.

Table 20.-Wheat cereal -- Farm-to-retail price spreads

Year and month	1/ Farm value of 2.065 lbs. of wheat	Retail value of 28 oz. pkg. of cereal	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1919	7.4	25.4	18.0	29
1920	7.6	30.0	22.4	25
1921	4.0	29.8	25.8	13
1922	3.6	25.8	22.2	14
1923	3.4	24.5	21.1	14
1924	3.8	24.3	20.5	16
1925	5.1	24.8	19.7	21
1926	4.7	25.4	20.7	19
1927	4.2	25.5	21.3	16
1928	3.9	25.6	21.7	15
1929	3.5	25.5	22.0	14
1930	2.8	25.4	22.6	11
1931	1.7	24.1	22.4	7
1932	1.3	22.5	21.2	6
1933	2.0	23.0	21.0	9
1934	2.8	24.2	21.4	12
1935	3.0	24.4	21.4	12
1935:				
Jan.	3.1	24.2	21.1	13
Feb.	3.0	24.3	21.3	12
Mar.	2.9	24.3	21.4	12
Apr.	3.1	24.5	21.4	13
May	3.0	24.5	21.5	12
June	2.7	24.7	22.0	11
July	2.6	24.7	22.1	11
Aug.	2.8	24.5	21.7	11
Sept.	3.0	24.5	21.5	12
Oct.	3.3	24.2	20.9	14
Nov.	3.1	24.3	21.2	13
Dec.	3.1	24.2	21.1	13
1936:				
Jan.	3.2	23.9	20.7	13
Feb.	3.2	24.1	20.9	13
Mar.	3.1	24.0	20.9	13
Apr.	3.0	24.2	21.2	12
May	2.8	24.3	21.5	12

1/ 28 ozs. of wheat cereal are obtained from 2.065 lbs. of wheat.

No allowance is made for the processing tax on wheat, which was 30¢ per bushel from July 9, 1933, to Jan. 6, 1936.

Table 21. - Rice -- Farm-to-retail price spreads

Year and month	1/ Farm value of 1.51 lbs. of rough rice	Retail value of 1 lb. of rice	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1913	3.1	8.7	5.6	36
1914	2.9	8.8	5.9	33
1915	3.1	9.1	6.0	34
1916	3.0	9.1	6.1	33
1917	3.0	10.4	7.4	29
1918	6.4	12.9	6.5	50
1919	6.4	15.1	8.7	42
1920	8.9	17.4	8.5	51
1921	4.0	9.5	5.5	42
1922	3.2	9.5	6.3	34
1923	3.1	9.5	6.4	33
1924	4.2	10.1	5.9	42
1925	4.9	11.1	6.2	44
1926	4.4	11.6	7.2	38
1927	3.3	10.7	7.4	31
1928	3.0	10.0	7.0	30
1929	3.2	9.7	6.5	33
1930	3.1	9.5	6.4	33
1931	2.2	8.2	6.0	27
1932	1.6	6.7	5.1	24
1933	1.9	6.2	4.3	31
1934	2.6	8.0	5.4	32
1935	2.5	8.3	5.8	30
1935:				
Jan.	2.6	8.2	5.6	32
Feb.	2.6	8.2	5.6	32
Mar.	2.6	8.2	5.6	32
Apr.	2.8	8.3	5.5	34
May	2.9	8.3	5.4	35
June	3.0	8.3	5.3	36
July	3.0	8.3	5.3	36
Aug.	2.4	8.3	5.9	29
Sept.	1.6	8.4	6.8	19
Oct.	1.9	8.4	6.5	23
Nov.	2.2	8.5	6.3	26
Dec.	2.4	8.6	6.2	28
1936:				
Jan.	2.9	8.7	5.8	33
Feb.	2.9	8.5	5.6	34
Mar.	2.9	8.5	5.6	34
Apr.	2.9	8.5	5.6	34
May	3.0	8.5	5.5	35

1/ Farm value based upon Louisiana farm price. One 162-lb. barrel of rough rice yields about 107 pounds of milled rice as retailed.

No allowance is made for the processing tax, which was 1¢ per pound of rough rice from April 1, 1935, to Jan. 6, 1936.

Table 22. - Beans, Navy -- Farm-to-retail price spreads

Year and month	1/ Farm value of 1 lb. of dry beans	Retail value of 1 lb. of navy beans	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1915	4.3	7.8	3.5	55
1916	6.4	11.0	4.6	58
1917	10.9	17.9	7.0	61
1918	9.3	17.3	8.0	54
1919	6.6	12.6	6.0	52
1920	6.1	11.4	5.3	54
1921	4.3	8.2	3.9	52
1922	5.6	9.9	4.3	57
1923	6.0	11.0	5.0	55
1924	5.4	9.9	4.5	55
1925	5.9	10.2	4.3	58
1926	5.3	9.3	4.0	57
1927	5.1	9.3	4.2	55
1928	6.8	11.8	5.0	58
1929	7.9	14.0	6.1	56
1930	5.7	11.5	5.8	50
1931	3.0	7.8	4.8	38
1932	1.9	5.1	3.2	37
1933	2.5	5.3	2.8	47
1934	3.1	5.9	2.8	53
1935	3.3	6.0	2.7	55
1935:				
Jan.	3.5	6.1	2.6	57
Feb.	3.5	6.0	2.5	58
Mar.	3.6	6.1	2.5	59
Apr.	3.6	6.0	2.4	60
May	3.6	6.1	2.5	59
June	3.5	6.1	2.6	57
July	3.4	6.1	2.7	56
Aug.	3.3	6.1	2.8	54
Sept.	3.1	6.0	2.9	52
Oct.	2.9	6.0	3.1	48
Nov.	2.7	5.9	3.2	46
Dec.	2.4	5.8	3.4	41
1936:				
Jan.	2.6	5.7	3.1	46
Feb.	2.8	5.6	2.8	50
Mar.	2.9	5.6	2.7	52
Apr.	3.0	5.6	2.6	54
May	3.0	5.7	2.7	53

1/ Farm value is based upon the U. S. average farm price of dry edible beans, including all important varieties.

Table 23. - Beans with pork, canned -- Farm-to-retail price spreads

Year and month	1/ Farm value of .35 lb. of dry beans	Retail value 16 oz. Can of baked beans	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1919	2.4	14.1	11.7	17
1920	2.1	13.4	11.3	16
1921	1.2	11.6	10.4	10
1922	2.1	10.6	8.5	20
1923	2.1	10.4	8.3	20
1924	1.6	10.2	8.6	16
1925	1.8	9.9	8.1	18
1926	1.4	9.5	8.1	15
1927	1.6	9.2	7.6	17
1928	2.7	9.2	6.5	29
1929	2.9	9.4	6.5	31
1930	1.9	8.8	6.9	22
1931	1.1	8.2	7.1	13
1932	.49	7.4	6.9	7
1933	.66	6.6	5.9	10
1934	.84	6.8	6.0	12
1935	.84	7.0	6.2	12
1935:				
Jan.	.9	6.9	6.0	13
Feb.	.9	7.0	6.1	13
Mar.	1.0	7.0	6.0	14
Apr.	1.0	7.0	6.0	14
May	1.0	7.0	6.0	14
June	.9	7.0	6.1	13
July	.9	7.0	6.1	13
Aug.	.8	7.0	6.2	11
Sept.	.8	7.0	6.2	11
Oct.	.7	6.9	6.2	10
Nov.	.6	7.1	6.5	8
Dec.	.6	7.1	6.5	8
1936:				
Jan.	.6	7.1	6.5	8
Feb.	.7	7.1	6.4	10
Mar.	.7	7.0	6.3	10
Apr.	.7	7.1	6.4	10
May	.8	7.0	6.2	11

1/ Farm value is based upon the Michigan average farm price of dry edible beans, representing principally the variety known as pea beans.

Table 24.- Oranges -- Farm-to-retail price spreads

Year and month	1/ Farm value per doz. 1/17 of box	Retail value per doz.	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1919	16.5	53.2	36.7	31
1920	20.2	63.2	43.0	32
1921	13.6	49.6	36.0	27
1922	20.2	57.4	37.2	35
1923	11.2	49.8	38.6	22
1924	12.0	44.0	32.0	27
1925	21.6	55.6	34.0	39
1926	15.6	50.7	35.1	31
1927	17.5	50.9	33.4	34
1928	28.4	58.0	29.6	49
1929	11.7	43.3	31.6	27
1930	22.4	57.3	34.9	39
1931	10.2	35.1	24.9	29
1932	8.4	31.0	22.6	27
1933	6.4	27.4	21.0	23
1934	10.2	32.8	22.6	31
1935	8.7	31.8	23.1	27
1935:				
Jan.	6.7	29.0	22.3	23
Feb.	7.4	30.0	22.6	25
Mar.	7.5	28.7	21.2	26
Apr.	10.8	31.8	21.0	34
May	8.0	33.3	25.3	24
June	7.7	32.2	24.5	24
July	8.7	31.8	23.1	27
Aug.	8.2	32.3	24.1	25
Sept.	10.6	34.4	23.8	31
Oct.	9.9	33.6	23.7	29
Nov.	9.4	33.6	24.2	28
Dec.	9.2	31.2	22.0	29
1936:				
Jan.	8.7	30.2	21.5	29
Feb.	9.4	30.2	20.8	31
Mar.	9.1	30.5	21.4	30
Apr.	9.0	29.5	20.5	31
May	10.4	31.5	21.1	33

1/ Florida and California oranges have averaged about 17 dozen per box for recent years.

Table 25.- Potatoes -- Farm-to-retail price spreads

Year and month	Farm value of 1 lb. of potatoes	Retail price of 1 lb. of potatoes	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1913	1.0	1.7	.7	59
1914	1.1	1.8	.7	61
1915	.9	1.5	.6	60
1916	1.8	2.7	.9	67
1917	3.1	4.3	1.2	72
1918	1.9	3.2	1.3	59
1919	2.4	3.8	1.4	63
1920	4.1	6.3	2.2	65
1921	1.7	3.1	1.4	55
1922	1.6	2.8	1.2	57
1923	1.4	2.9	1.5	48
1924	1.4	2.7	1.3	52
1925	1.9	3.6	1.7	53
1926	3.1	4.9	1.8	63
1927	2.2	3.8	1.6	58
1928	1.4	2.7	1.3	52
1929	1.6	3.2	1.6	50
1930	2.1	3.6	1.5	58
1931	1.2	2.3	1.1	52
1932	.7	1.7	1.0	41
1933	1.1	2.3	1.2	48
1934	1.1	2.3	1.2	48
1935	.8	1.9	1.1	42
1935:				
Jan.	.77	1.8	1.0	43
Feb.	.75	1.8	1.0	42
Mar.	.73	1.7	1.0	43
Apr.	.82	1.9	1.1	43
May	.74	2.1	1.4	35
June	.68	2.1	1.4	32
July	.87	2.1	1.2	41
Aug.	.85	1.8	1.0	47
Sept.	.81	1.7	.9	48
Oct.	.77	1.7	.9	45
Nov.	1.04	2.2	1.2	47
Dec.	1.07	2.3	1.2	47
1936:				
Jan.	1.10	2.3	1.2	48
Feb.	1.15	2.3	1.1	50
Mar.	1.21	2.4	1.2	50
Apr.	1.35	2.8	1.4	48
May	1.45	3.3	1.8	44

Table 26.--Cabbage -- Farm-to-retail price spreads

Year	1/ Farm value of 1 lb. of cabbage	Retail value of 1 lb. of cabbage	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1919	1.4	5.9	4.5	24
1920	1.1	6.4	5.3	17
1921	1.5	5.0	3.5	30
1922	.88	4.6	3.7	19
1923	1.4	5.4	4.0	26
1924	1.1	5.2	4.1	21
1925	2.0	5.1	3.1	39
1926	1.1	5.8	4.7	19
1927	1.6	5.3	3.7	30
1928	1.2	5.0	3.8	24
1929	1.0	5.1	4.1	20
1930	1.1	5.5	4.4	20
1931	.56	3.8	3.2	15
1932	.65	4.0	3.4	16
1933	.92	3.9	3.0	24
1934	.46	3.5	3.0	13
1935	.73	4.0	3.3	18

1/ Farm value is based upon U. S. seasonal average farm price per ton of cabbage for market.

Table 27.--Onions -- Farm-to-retail price spreads

Year	1/ Farm value of 1 lb. of onions	Retail value of 1 lb. of onions	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1918	1.8	4.7	2.9	38
1919	3.0	7.4	4.4	41
1920	1.5	7.1	5.6	21
1921	2.4	5.5	3.1	44
1922	1.6	7.9	6.3	20
1923	2.5	6.4	3.9	39
1924	1.6	6.0	4.4	27
1925	2.0	7.1	5.1	28
1926	1.4	6.0	4.6	23
1927	1.5	6.4	4.9	23
1928	2.2	6.2	4.0	35
1929	1.3	6.8	5.5	19
1930	.91	5.0	4.1	18
1931	1.4	4.3	2.9	33
1932	.70	5.2	4.5	13
1933	1.1	3.6	2.5	31
1934	1.1	4.4	3.3	25
1935	1.3	5.2	3.9	25

1/ Farm value is based upon U. S. seasonal average farm price of onions per 100 lb. sack.

Table 28.-Prunes — Farm-to-retail price spreads

Year	1/ Farm value of 1 lb. of prunes	Retail value of 1 lb.	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1920	9.3	28.1	18.8	33
1921	6.5	19.8	13.3	33
1922	6.8	20.1	13.3	34
1923	6.0	19.1	13.1	31
1924	5.2	17.5	12.3	30
1925	5.5	17.3	11.8	32
1926	5.2	17.0	11.8	31
1927	4.2	15.3	11.1	27
1928	4.2	13.7	9.5	31
1929	6.4	15.4	9.0	42
1930	5.2	16.4	11.2	32
1931	2.8	11.8	9.0	24
1932	2.8	9.4	6.6	30
1933	3.4	9.6	6.2	35
1934	4.0	11.4	7.4	35
1935	3.5	11.0	7.5	32

1/ Farm value is based upon average of current and preceding years' seasonal prices paid California growers per ton dried basis.

Table 29.-Raisins — Farm-to-retail price spreads

Year	1/ Farm value of 1.08 lbs. of raisins	Retail value of 1 lb. of raisins	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1920	12.0	28.6	16.6	42
1921	11.4	29.8	18.4	38
1922	8.0	23.0	15.0	35
1923	4.0	17.6	13.6	23
1924	3.1	15.4	12.3	20
1925	4.0	14.5	10.5	28
1926	4.0	14.7	10.7	27
1927	3.5	14.2	10.7	25
1928	2.7	13.2	10.5	20
1929	2.7	11.8	9.1	23
1930	3.2	11.9	8.7	27
1931	3.2	11.3	8.1	28
1932	2.7	11.1	8.4	24
1933	2.6	9.3	6.7	28
1934	3.3	9.6	6.3	34
1935	2.9	9.8	6.9	30

1/ Farm value is based upon average of current and preceding years' seasonal prices paid California growers per ton dried basis. One pound of raisins as retailed is obtained from 1.08 lbs. as sold by the grower.

Table 30.- Beet sugar -- Farm-to-retail price spreads

Year	Sugar beets equivalent 1/ of 1 lb. sugar		2/ Retail value of 1 lb. sugar	Actual margin	Farm value as percentage of retail value
	Pounds	Farm value			
	cents	cents	cents	cents	percent
1913	7.9	2.3	5.5	3.2	42
1914	8.0	2.3	6.0	3.7	38
1915	7.7	2.1	6.4	4.3	33
1916	7.5	2.1	7.6	5.5	28
1917	7.6	2.3	9.4	7.1	24
1918	7.8	2.9	9.7	6.8	30
1919	7.8	3.9	11.7	7.8	33
1920	8.8	5.2	19.5	14.3	27
1921	7.8	4.5	8.3	3.8	54
1922	7.7	2.4	7.6	5.2	32
1923	7.7	3.0	10.4	7.4	29
1924	8.0	3.6	9.4	5.8	38
1925	6.9	2.7	7.6	4.9	36
1926	8.1	2.6	7.2	4.6	36
1927	8.1	3.1	7.7	4.6	40
1928	7.1	2.7	7.4	4.7	35
1929	6.7	2.4	6.9	4.5	35
1930	7.3	2.6	6.5	3.9	40
1931	7.7	2.7	6.0	3.3	45
1932	7.0	2.1	5.4	3.3	39
1933	6.7	1.8	5.6	3.8	32
1934	6.7	1.7	5.8	4.1	29
1935	6.5	1.7	6.0	4.3	28

1/ Farm value and physical equivalent are based upon farm price and sugar yield per ton of beets for the previous season. The first column shows the number of pounds of beets from which one pound of refined sugar was obtained.

2/ Retail value is based upon average retail price of granulated sugar in Central and Mid-Western cities.

No allowance is made for the processing tax per pound of raw sugar which was 0.5¢ from June 8, 1934, to Jan. 6, 1936.

Table 31.- Cane sugar -- Farm-to-retail price spreads

Year	Sugar cane equivalent 1/ of 1 lb. sugar		Retail value of 1 lb. sugar	Actual margin	Farm value as percentage of retail value
	Pounds	Farm value			
	cents	cents	cents	cents	percent
1925	15.0	4.2	7.2	3.0	58
1926	20.4	4.1	6.9	2.8	59
1927	19.6	4.8	7.3	2.5	66
1928	14.6	3.4	7.1	3.7	48
1929	15.1	2.9	6.6	3.7	44
1930	15.7	3.0	6.2	3.2	48
1931	15.0	2.5	5.7	3.2	44
1932	15.1	2.5	5.1	2.6	49
1933	13.7	2.1	5.4	3.3	39
1934	13.5	2.2	5.6	3.4	39
1935	13.8	1.8	5.7	3.9	32

1/ Farm value and physical equivalent are based upon farm price and sugar yield per ton of Louisiana sugar cane for preceding season. The first column shows the number of pounds of cane from which one pound of refined sugar was obtained.

No allowance is made for the processing tax per pound of raw sugar, which was 0.5¢ from June 8, 1934, to Jan. 6, 1936.

Table 32.- Corn, canned -- Farm-to-retail price spreads

Year	1/ Farm value of 3.2 lbs. of sweet corn	Retail value of No. 2 can	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1919	2.9	19.2	16.3	15
1920	3.0	18.5	15.5	16
1921	2.6	16.3	13.7	16
1922	2.0	15.5	13.5	13
1923	1.9	15.4	13.5	12
1924	2.1	16.0	13.9	13
1925	2.3	17.8	15.5	13
1926	2.3	16.5	14.2	14
1927	2.0	15.7	13.7	13
1928	2.0	15.9	13.9	13
1929	2.1	15.8	13.7	13
1930	2.1	15.3	13.2	14
1931	1.9	13.4	11.5	14
1932	1.5	10.7	9.2	14
1933	1.2	10.2	9.0	12
1934	1.3	11.5	10.2	12
1935	1.4	12.6	11.2	11

1/ Farm value is based upon an average of the current and preceding years' seasonal average prices paid growers per ton of sweet corn for manufacture.

Table 33.- Peas, canned -- Farm-to-retail price spreads

Year	1/ Farm value of .877 lbs. of peas for canning	Retail value of No. 2 can	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1919	2.7	19.1	16.4	14
1920	2.8	19.1	16.3	15
1921	2.7	17.8	15.1	15
1922	2.5	17.6	15.1	14
1923	2.6	17.6	15.0	15
1924	2.6	18.1	15.5	14
1925	2.6	18.4	15.8	14
1926	2.6	17.5	14.9	15
1927	2.5	16.8	14.3	15
1928	2.5	16.8	14.3	15
1929	2.5	16.7	14.2	15
1930	2.5	16.2	13.7	15
1931	2.5	14.2	11.7	18
1932	2.2	12.9	10.7	17
1933	1.9	13.0	11.1	15
1934	2.0	16.6	14.6	12
1935	2.2	17.1	14.9	13

1/ Farm value is based upon an average of the current and preceding years' seasonal average prices paid growers per ton of shelled green peas for manufacture.

Table 34.—Tomatoes, canned — Farm-to-retail price spreads

Year	[1] Farm value of 2.3 lbs. of tomatoes	Retail value of No. 2 can of tomatoes	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1919	2.3	16.2	13.9	14
1920	2.2	14.8	12.6	15
1921	1.8	12.1	10.3	15
1922	1.4	13.4	12.0	10
1923	1.5	12.9	11.4	12
1924	1.7	13.2	11.5	13
1925	1.8	13.6	11.8	13
1926	1.7	12.1	10.4	14
1927	1.7	12.0	10.3	14
1928	1.6	11.7	10.1	14
1929	1.7	13.0	11.3	13
1930	1.7	12.3	10.6	14
1931	1.5	10.3	8.8	15
1932	1.3	9.3	8.0	14
1933	1.2	9.1	7.9	13
1934	1.4	10.4	9.0	13
1935	1.4	10.0	8.6	14

[1] Farm value is based upon an average of the current and preceding years' seasonal average prices paid growers per ton of tomatoes for manufacture.

Table 35.- Apples -- Farm-to-retail price spreads

Year and month	Farm value of 1 pound of apples	Retail value of 1 pound of apples	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1934	2.0	6.2	4.2	32
(Feb.-Dec.avg.) 1935	1.9	5.8	3.9	33
1935:				
Jan.	2.1	6.1	4.0	34
Feb.	2.2	6.0	3.8	37
Mar.	2.2	5.7	3.5	39
Apr.	2.3	6.1	3.8	38
May	2.4	6.7	4.3	36
June	2.4	7.8	5.4	31
July	2.0	6.4	4.4	31
Aug.	1.6	5.2	3.6	31
Sept.	1.4	4.7	3.3	30
Oct.	1.3	4.5	3.2	29
Nov.	1.4	4.7	3.3	30
Dec.	1.6	5.2	3.6	31
1936:				
Jan.	1.7	5.4	3.7	31
Feb.	1.8	5.3	3.5	34
Mar.	1.8	5.4	3.6	33
Apr.	1.8	5.5	3.7	33
May	1.9	5.6	3.7	34

Table 36.- Lemons -- Farm-to-retail price spreads

Year and month	1/ Farm value of 1/27 box of lemons	Retail value of 1 dozen lemons	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1934	9.4	29.0	19.6	32
(Feb.-Dec.avg.) 1935	8.6	27.3	18.7	32
1935:				
Jan.	6.9	26.8	19.9	26
Feb.	3.6	24.5	20.9	15
Mar.	3.4	22.6	19.2	15
Apr.	5.4	22.1	16.7	24
May	3.1	22.1	19.0	14
June	4.4	22.4	18.0	20
July	15.2	31.1	15.9	49
Aug.	13.0	33.1	20.1	39
Sept.	7.2	30.2	23.0	24
Oct.	12.2	29.4	17.2	41
Nov.	12.2	31.4	19.2	39
Dec.	16.1	32.4	16.3	50
1936:				
Jan.	10.0	32.1	22.1	31
Feb.	9.6	28.9	19.3	33
Mar.	11.7	28.8	17.1	41
Apr.	9.6	28.4	18.8	34
May	17.0	31.3	14.3	54

1/ Farm value based upon California farm price per box, assuming 27 dozen per box as a normal size.

Table 37.- Lamb products -- Farm-to-retail price spreads

Year and month	1/ Farm value of 2.16 lbs. of live lamb	2/ Average retail price of 1 lb. of principal lamb cuts	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1934	12.5	23.8	11.3	53
(Feb.-Dec.avg.) 1935	14.8	26.4	11.6	56
1935:				
Jan.	13.4	25.7	12.3	52
Feb.	14.4	26.8	12.4	54
Mar.	14.4	26.8	12.4	54
Apr.	14.2	26.3	12.1	54
May	14.2	26.2	12.0	54
June	14.1	26.7	12.6	53
July	13.5	26.2	12.7	52
Aug.	14.0	25.6	11.6	55
Sept.	15.6	26.9	11.3	58
Oct.	15.9	26.5	10.6	60
Nov.	16.3	26.1	9.8	62
Dec.	17.6	27.0	9.4	65
1936:				
Jan.	17.8	27.4	9.6	65
Feb.	17.9	26.7	8.8	67
Mar.	17.5	26.2	8.7	67
Apr.	18.3	26.9	8.6	68
May	18.6	28.8	10.2	65

See discussion of lamb products in section on Equivalents, pp. 22-23.

1/ 100 lbs. of good grade live lamb yields 46.3 lbs. of principal lamb cuts, making 2.16 lbs. live lamb per pound of retail cuts.

2/ Average retail price per pound is obtained by weighting the price of each cut by weights proportional to amounts of these cuts obtained per 100 lbs. of good grade lamb. These retail prices probably represent better grade meats, and are not strictly comparable with the farm price of lambs which includes some low grade animals.

Table 38.- Sweet potatoes -- Farm-to-retail price spreads

Year and month	Farm value of 1 pound of sweet potatoes	Retail price of 1 pound of sweet potatoes	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1934	1.5	5.0	3.5	30
(Feb.-Dec.avg)				
1935	1.3	4.4	3.1	30
1935:				
Jan.	1.3	4.8	3.5	27
Feb.	1.4	4.8	3.4	29
Mar.	1.4	4.9	3.5	29
Apr.	1.4	4.9	3.5	29
May	1.5	5.0	3.5	30
June	1.5	5.1	3.6	29
July	1.5	5.2	3.7	29
Aug.	1.5	4.6	3.1	33
Sept.	1.3	3.7	2.4	35
Oct.	1.1	2.9	1.8	38
Nov.	1.1	3.0	1.9	37
Dec.	1.1	3.4	2.3	32
1936:				
Jan.	1.2	3.6	2.4	33
Feb.	1.3	3.7	2.4	35
Mar.	1.3	3.7	2.4	35
Apr.	1.4	4.0	2.6	35
May	1.5	4.5	3.0	33

Table 39.- Rye bread -- Farm-to-retail price spreads

Year and month	1/ Farm value of .39 lb. rye and .64 lb. wheat	Retail value of 1 pound of rye bread	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1934	1.3	8.7	7.4	15
(Feb.-Dec.avg.)				
1935	1.3	9.0	7.7	14
1935:				
Jan.	1.5	8.9	7.4	17
Feb.	1.4	8.7	7.3	16
Mar.	1.4	8.9	7.5	16
Apr.	1.4	8.9	7.5	16
May	1.4	9.0	7.6	16
June	1.2	8.9	7.7	13
July	1.1	8.9	7.8	12
Aug.	1.1	9.0	7.9	12
Sept.	1.2	9.0	7.8	13
Oct.	1.3	9.0	7.7	14
Nov.	1.2	9.1	7.9	13
Dec.	1.2	9.2	8.0	13
1936:				
Jan.	1.3	9.2	7.9	14
Feb.	1.3	9.1	7.8	14
Mar.	1.3	9.1	7.8	14
Apr.	1.2	9.0	7.8	13
May	1.2	8.9	7.7	13

1/ One pound of rye bread requires amounts of white and rye flour obtained from .64 lb. of wheat and .39 lb. of rye, according to a standard formula.

No allowance is made for processing tax per bushel of wheat, which was 30 cents since July 9, 1933, or per bushel of rye, which was 30 cents from September 1, 1935 to January 6, 1936.

Table 40.- Whole wheat bread -- Farm-to-retail price spreads

Year and month	1/ Farm value of .92 pound of wheat	Retail value of 1 pound of whole wheat bread	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1934 (Feb.-Dec. avg.)	1.2	8.8	7.6	14
1935	1.3	9.1	7.8	14
1935:				
Jan.	1.4	9.0	7.6	16
Feb.	1.3	9.0	7.7	14
Mar.	1.3	9.0	7.7	14
Apr.	1.4	9.0	7.6	16
May	1.3	9.1	7.8	14
June	1.2	9.0	7.8	13
July	1.2	9.0	7.8	13
Aug.	1.2	9.0	7.8	13
Sept.	1.3	9.2	7.9	14
Oct.	1.5	9.4	7.9	16
Nov.	1.4	9.5	8.1	15
Dec.	1.4	9.5	8.1	15
1936:				
Jan.	1.4	9.5	8.1	15
Feb.	1.4	9.4	8.0	15
Mar.	1.4	9.3	7.9	15
Apr.	1.3	9.2	7.9	14
May	1.3	9.3	8.0	14

1/ One pound of whole wheat bread requires an amount of whole wheat flour obtained from .92 lb. of wheat.

No allowance is made for the processing tax per bushel of wheat, which was 30 cents from July 9, 1933 to Jan. 6, 1936.

Table 41.- Macaroni -- Farm-to-retail price spreads

Year and month	1/ Farm value of 1.72 lbs. of durum wheat	Retail value of 1 pound of macaroni	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1929	2.7	19.7	17.0	14
1930	1.9	19.3	17.4	10
1931	1.3	16.9	15.6	8
1932	1.0	15.3	14.3	7
1933	1.2	15.0	13.8	8
1934	2.5	15.7	13.2	16
1935	2.4	15.6	13.2	15
1935:				
Jan.	3.1	15.8	12.7	20
Feb.	2.9	15.7	12.8	18
Mar.	2.8	15.7	12.9	18
Apr.	2.9	15.8	12.9	18
May	2.7	15.7	13.0	17
June	2.1	15.7	13.6	13
July	1.9	15.6	13.7	12
Aug.	2.1	15.6	13.5	13
Sept.	2.0	15.6	13.6	13
Oct.	2.3	15.4	13.1	15
Nov.	2.2	15.5	13.3	14
Dec.	2.3	15.4	13.1	15
1936:				
Jan.	2.4	15.3	12.9	16
Feb.	2.5	15.0	12.5	17
Mar.	2.4	14.8	12.4	16
Apr.	2.2	14.8	12.6	15
May	2.0	14.7	12.7	14

1/ One pound of macaroni is processed from 1.72 pounds of durum wheat.

No allowance is made for the processing tax on wheat which was 30¢ per bushel from July 9, 1933, to January 6, 1936.

Table 42.- Soda crackers -- Farm-to-retail price spreads

Year and month	1/ Farm value of 1.085 lbs. of wheat	Retail value of 1 lb. of soda crackers	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1935	1.6	17.2	15.6	9
1935:				
Jan.	1.6	16.5	14.9	10
Feb.	1.6	16.6	15.0	10
Mar.	1.5	16.6	15.1	9
Apr.	1.6	16.6	15.0	10
May	1.6	16.7	15.1	10
June	1.4	16.8	15.4	8
July	1.4	17.2	15.8	8
Aug.	1.5	17.5	16.0	9
Sept.	1.6	17.8	16.2	9
Oct.	1.7	18.2	16.5	9
Nov.	1.6	18.1	16.5	9
Dec.	1.6	18.0	16.4	9
1936:				
Jan.	1.7	17.9	16.2	9
Feb.	1.7	17.9	16.2	9
Mar.	1.6	18.1	16.5	9
Apr.	1.6	18.1	16.5	9
May	1.5	18.0	16.5	8

1/ One pound of soda crackers requires an amount of white flour obtained from 1.085 lbs. of wheat.

No allowance is made for the processing tax on wheat, which was 30 cents per bushel from July 9, 1933 to Jan. 6, 1936.

Table 43.- Hominy grits -- Farm-to-retail price spreads

Year and month	1/ Farm value of 2.95 lbs. of corn	Retail value of 24-oz. pkg. of hominy grits	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1935	4.1	10.1	6.0	41
1935:				
Jan.	4.5	10.6	6.1	42
Feb.	4.5	10.5	6.0	43
Mar.	4.4	10.3	5.9	43
Apr.	4.5	10.5	6.0	43
May	4.5	10.3	5.8	44
June	4.4	10.5	6.1	42
July	4.4	10.5	6.1	42
Aug.	4.3	10.3	6.0	42
Sept.	4.1	9.9	5.8	41
Oct.	3.8	9.1	5.3	42
Nov.	3.0	9.2	6.2	33
Dec.	2.8	9.2	6.4	30
1936:				
Jan.	2.8	9.1	6.3	31
Feb.	2.9	9.1	6.2	32
Mar.	3.0	9.0	6.0	33
Apr.	3.0	9.0	6.0	33
May	3.2	9.0	5.8	36

1/ One 56-pound bushel of corn yields about 28-29 pounds of hominy grits, making 2.95 pounds of corn per 24-ounze package of hominy grits as retailed.

No allowance is made for the processing tax on corn, which was 5 cents per bushel from Nov. 5, 1933 to Jan. 6, 1936.

Table 44.- Peanut butter -- Farm-to-retail price spreads

Year and month	1/ Farm value of 1.73 lbs. of peanuts	Retail value of 1 pound of peanut butter	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1934	5.7	16.8	11.1	34
(Feb.-Dec. avg.)				
1935	6.5	21.3	14.8	31
1935:				
Jan.	6.1	18.2	12.1	34
Feb.	7.1	19.3	12.2	37
Mar.	7.6	20.2	12.6	38
Apr.	7.6	21.2	13.6	36
May	7.6	21.9	14.3	35
June	7.1	22.3	15.2	32
July	6.7	22.3	15.6	30
Aug.	5.9	22.3	16.4	26
Sept.	5.9	22.2	16.3	27
Oct.	5.7	22.1	16.4	26
Nov.	5.4	21.9	16.5	25
Dec.	5.2	21.5	16.3	24
1936:				
Jan.	5.2	21.1	15.9	25
Feb.	5.4	20.1	14.7	27
Mar.	5.2	19.4	14.2	27
Apr.	5.4	19.0	13.6	28
May	5.7	18.8	13.1	30

1/ One pound of peanut butter is processed from 1.73 pounds of farm stock peanuts.

No allowance is made for the processing tax, which was 1 cent per pound of farm stock peanuts from Oct. 1, 1934 to Jan. 6, 1936.

Table 45.- Green beans -- Farm-to-retail price spreads

Year	1/ Farm value of 1/30 bushel of green beans	Retail value of 1 lb. of green beans	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1934	2.8	2/ 10.7	7.9	26
1935	3.5	12.0	8.5	29

1/ Farm value is based upon the seasonal average farm price per 30-pound bushel of snap beans for market.

Table 46.- Carrots -- Farm-to-retail price spreads

Year	1/ Farm value of 1/55 bushel of carrots	Retail value of 1 bunch of carrots	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1934	0.9	2/ 5.3	4.4	17
1935	1.0	5.5	4.5	18

1/ Farm value is based upon the seasonal average farm price per 50-pound bushel of carrots for market, assuming an average of 55 bunches per bushel.

Table 47.- Celery -- Farm-to-retail price spreads

Year	1/ Farm value of 1/78 of a 2/3-crate of celery	Retail value of 1 bunch of celery	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1934	1.6	2/ 9.8	8.2	16
1935	2.3	10.3	8.0	22

1/ Farm value is based upon the seasonal average farm price per 90-pound 2/3-crate of celery for market, assuming an average of 6½ dozen bunches per 2/3-crate.

2/ Retail value for 1934 is the average for 11 months, February to December.

Table 48.- Lettuce -- Farm-to-retail price spreads

Year	1/ Farm value of 1/48 crate of lettuce	Retail value of 1 head of lettuce	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1934	2.8	2/ 8.9	6.1	31
1935	3.0	8.8	5.8	34

1/ Farm value is based upon the seasonal average farm price per 75-pound crate of lettuce for market, assuming an average of 4 dozen heads per crate.

Table 49.- Spinach -- Farm-to-retail price spreads

Year	1/ Farm value of 1/18 bushel of spinach	Retail value of 1 pound of spinach	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1934	2.2	2/ 7.1	4.9	31
1935	3.1	7.9	4.8	39

1/ Farm value is based upon the seasonal average farm price per 18-pound bushel of spinach.

Table 50.- Canned green beans -- Farm-to-retail price spreads

Year	1/ Farm value of .88 lb. of green beans	Retail price per No. 2 can of green beans	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1934	1.8	2/ 11.8	10.0	15
1935	1.9	11.8	9.9	16

1/ Farm value is based upon average of current and preceding years' seasonal average price paid growers per ton of green beans for manufacture.

2/ Retail value for 1934 is the average for 11 months, February to December.

Table 51.- Canned asparagus -- Farm-to-retail price spreads

Year	1/ Farm value of 2.19 lbs. of asparagus	Retail price per No. 2 can of asparagus	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1934	6.2	2/ 23.8	17.6	26
1935	7.8	25.5	17.7	31

1/ Farm value is based upon an average of current and preceding years' seasonal average prices paid California growers per ton of asparagus for manufacture.

Table 52.- Canned peaches -- Farm-to-retail price spreads

Year	1/ Farm value of 1.87 lbs. of peaches	Retail price per No. 2½ can of peaches	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1934	2.1	2/ 18.4	16.3	11
1935	2.7	19.5	16.8	14

1/ Farm value is based upon an average of the current and preceding years' seasonal prices paid California growers per ton of clingstone peaches for canning, as given in the California Outlook charts and tables.

Table 53.- Canned pears -- Farm-to-retail price spreads

Year	1/ Farm value of 2.06 lbs. of pears	Retail price per No. 2½ can of pears	Actual margin	Farm value as percentage of retail value
	cents	cents	cents	percent
1934	2.4	2/ 21.4	19.0	11
1935	3.0	22.9	19.9	13

1/ Farm value is based upon an average of the current and preceding years' seasonal prices paid California and Pacific Northwest growers of Bartlett pears for canning, as shown in California Outlook reports.

2/ Retail price for 1934 is the average for 11 months, February to December.

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